



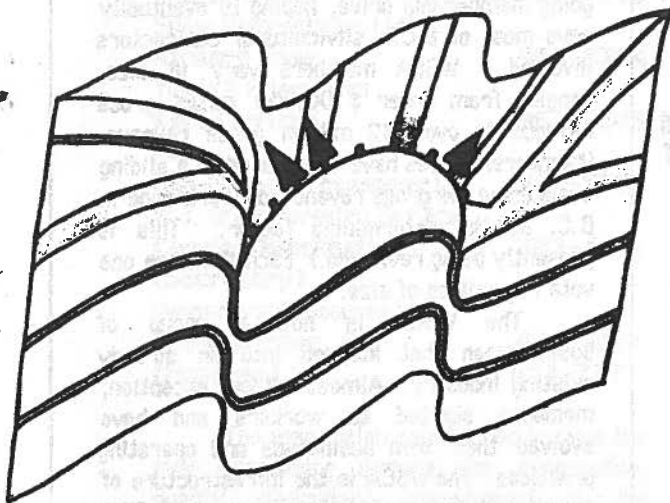
# WSCA

SUMMER EDITION 1985

ANNIVERSARY

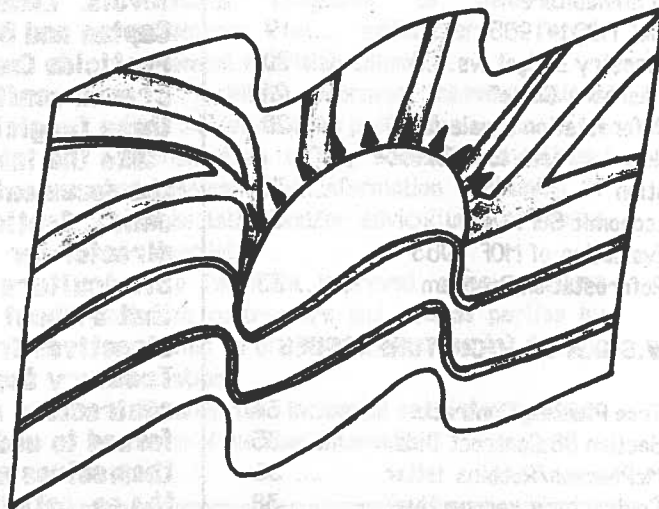
## NEWSLETTER

### IN A SUNSET INDUSTRY... THE SUN ALSO RISES



Contract prices have dropped for four consecutive years, while costs, requirements and quality demands increased. Contractors survived by cutting their costs, services and most dramatically, planters earnings. Many experienced planters and contractors have left the industry. A Treasury Board spring ruling on the administration of Section 88 required that all industry contracts to be let through advertized open bid to the lowest bidder. Preferred contractors face extinction. Silviculture Branch is determined there will be no bonus tree in 1986. Many contractors are doubtful there is a good future in reforestation.

HOW ARE A CRUMMY FULL OF VIEWERS  
AND A JET AIRCRAFT THE SAME?  
WHEN YOU TURN THE MOTOR OFF  
THEY'RE BOTH STILL WHINING!!!!



The Hon. Tom Waterland, partly in anticipation of three hundred million federal dollars boosting the provincial reforestation plan, announced that there will be two hundred million trees planted in 1988. As a first step towards this there will be one hundred and fifty five million seedlings planted in 1986. (The 1985 program projected one hundred and twenty eight million.)

Combined with this increased availability of trees to plant is a shortage of experienced planters. According to the laws of supply and demand this should result in an increase in the bid price. Whether this will or not depends on how contractors bid and how foresters administer. The WSCA has assembled this newsletter to inform contractors and foresters so that the silviculture program does not fail out of ignorance or fear.

continued on page 44

# FEATURES

1. In a Sunset Industry.... 1
2. Western Silvicultural Contractor's Association .... 2

## STATUS OF FORESTRY IN B.C.

3. Forest and Range Resource Analysis .... 4
4. The Status of B.C.'s Timber Resource .... 7
5. State of the Forest Industry .... 10
6. Forestry 2,000 A.D. .... 14
7. Fed/Prov. Agreement .... 16
8. Priorities and New Developments in Silviculture .... 17
9. BILL M201-1985 .... 19
10. Forestry Budget vs. .... 20
11. "Numbers Game" .... 21
12. Reforestation equals jobs .... 28
13. New Approach to reforestation .... 30
14. Economic Survival .... 32
15. Evaluation of MOF 1983 Reforestation Program .... 33

## W.S.C.A SILVICULTURE ISSUES

16. Tree Planting Contracts .... 34
17. Section 88: Contract Bids .... 35
18. McPherson/Robbins letter .... 36
19. Contractor's perspective.. .... 38
20. Dramas..... .... 40
21. W.S.C.A Insurance .... 41
22. Tree Planting Jamboree at Expo '86 .... 43
23. A Comparison of costs... .... 48

## TERRA-ISM

The zealous militant arm of the Cutthroat Contractor's Association made a suicide car-bomb run at the Treasury Board on July 10, 1985. The car was found to be stuffed with hot-lifted seedlings whose metabolic mass temperatures were reaching critical levels. Laced with Captain and Bravo the Pesticide Control Branch confirmed these fungicides would "take the ink right off the document". Bob Jones, Section 88 director for Silviculture admitted that without signed directives from Treasury Board some contractors may be forced to underbid themselves again in the so-called "platonic" or "preferred relationships". The jihad continues.

Victoria  
Correspondent

Tuff McDuff



## WESTERN SILVICULTURAL CONTRACTOR'S ASSOC.

The Western Silvicultural Contractor's Association was organized in November, 1980 and was registered under the B.C. Societies Act in January, 1981.

Presently the WSCA has about thirty-two member firms located throughout the province, most of which are chiefly involved in tree planting, some in thinning. However, a wide range of silvicultural activities are done by these contractors and the WSCA has an on-going membership drive, hoping to eventually have most of B.C.'s silvicultural contractors involved. WSCA members vary in size, ranging from under \$100,000 annual gross revenue to over \$2 million gross revenue. (Membership fees have been based on a sliding scale using the gross revenue of work done in B.C. as the determining factor. This is presently being reviewed.) Each firm has one vote regardless of size.

The WSCA is not a group of businessmen that stepped into an already existing industry. Almost without exception, members started as workers and have evolved their own businesses and operating practices. The WSCA is the infrastructure of the silvicultural contracting community. Silviculture plays a critical role in forest management, the success of which directly affects the social and economic welfare of everyone in B.C. Tree planting and tree spacing are skilled professional occupations requiring expertise, training, equipment and supervision to maintain quality work.

The primary objectives of the association are: to promote the policies, goals and objectives of professional silvicultural contractors, actively lobby issues directly affecting the silvicultural industry and to foster greater public awareness of the nature of silviculture, and the social and economic benefits that can be derived from the ethical and professional standards of work quality set by the WSCA in the province of British Columbia.

A Code of Ethics was adopted by the members, and a board of directors elected.

THE W.S.C.A NEWSLETTER is published quarterly by the Western Silvicultural Contractor's Association.

Opinions expressed in signed articles are those of the authors and do not necessarily represent the views of the WSCA. Letters and comments can be addressed to:

**WESTERN SILVICULTURAL CONTRACTOR'S ASSOCIATION**

2778 MILLSTREAM ROAD, VICTORIA, B.C. V9B 3S6

CONTRIBUTORS: Frank Barber, Dirk Brinkman, Richard Dunn, Tony Greenfield

### List of WSCA Directors

<b>Dirk Brinkman (president)</b>	<b>521-7771</b>
Brinkman and Associates Reforestation Ltd.	
<b>Tony Greenfield</b>	<b>885-5539</b>
Whiskeyjack Reforestation	
<b>Tony Harrison</b>	<b>734-5928</b>
Zanzibar Holdings	
<b>Deag Potkins</b>	<b>243-2361</b>
Likely Reforestation Ltd.	
<b>Bob Wright</b>	<b>352-7018</b>
Siltac Reforestation Ltd.	
<b>Richard Dunn</b>	<b>963-8364</b>
Triple 8 Enterprises	
<b>Karl Lowland</b>	<b>964-9543</b>
Tawa	
<b>Bill Green (Treasurer)</b>	<b>478-5795</b>
W.J. Green Forestry Services	
<b>Charles Blackhall</b>	<b>382-4671</b>
<b>(Secretary)</b>	
Pennyroyal Resources Ltd.	
<b>Frank Barber, RPF</b>	<b>478-2969</b>
<b>(Manager)</b>	<b>521-7771</b>

The association was formed to meet the ever increasing demand for responsible, quality silviculture management in the province of British Columbia.

Correspondence with the association should be directed to:

The Western Silvicultural Contractor's Association

ATTENTION: Frank Barber, RPF  
Manager  
2778 Millstream Rd.  
Victoria, B.C.  
V9B 3S6 phone: 478-2969

### The Purposes of the Association are:

- a: To promote the aims of silvicultural contractors in the Province of British Columbia.
- b: To represent and advance the interests of the members of the association to governments and their agencies, to corporations, and to other institutions and associations.

c: To enhance the profession of silvicultural contracting by developing professional and ethical standards, where a member's standing in the association may, from time to time, be evaluated.

d: To promote and aid research, education, and publication in connection with silviculture.

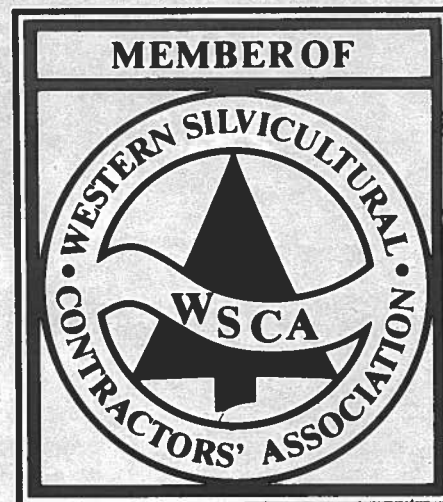
e: To foster public awareness of the nature of silviculture, and of the necessity of adequate silvicultural programs to meet the requirements of satisfactory forest management in British Columbia.

f: To facilitate improved communications within and without the profession by means of establishing an office, scheduling meetings, and disseminating information pertaining to the association and/or silviculture, by means of a newsletter.

g: To facilitate improved communications between contractors and outside parties by appointing an official spokesperson(s) for the association.

h: To undertake incidental or related points of concern of member interests.

**Gummy Window Stickers** are available to members at \$3.00 each. The lettering is a light green on a clear background. The WSCA logo serves to promote the Western Silvicultural Contractor's Association to the Ministry, Industry and Public sectors.





# Forest and Range Resource Analysis

**F**orests Minister Tom Waterland announced in March that a record 200 million trees per year will be planted in B.C. within two years as part of an accelerated reforestation program.

"We'll extend our planting activities to more than 60% of current logged areas within two years," Waterland stated. "That's the same level practiced in Finland — and they're generally considered the world leaders in the field."

Unveiling his Ministry's latest Five-Year Program, Waterland noted the new document provides for increased funding in a number of forest management areas.

"The silviculture program receives special emphasis, with plans for greatly expanded planting on both recently and previously logged areas," said Waterland. "The British Columbia-Canada Forestry



Agreement, part of the Economic and Regional Development Agreement (ERDA) between the province and the federal government, will contribute to the Five-Year Program."

The proposed federal-provincial agreement should result in \$300 million being spent over five years. It will be aimed particularly at the planting of backlog areas, which require clearing and other intensive silvicultural work.

The Ministry's Five-Year Program was one of three inter-connected documents tabled in the legislature March 19 by the minister. The others, the 1983-84 Annual Report of the Ministry, and the Forest and Range Resource Analysis, provide specifics on current progress, resource challenges and opportunities and future directions in forest and range management.

### Strategies for future

However, Waterland stressed, the Resource Analysis is the key component — the factual foundation on which new strategies will be based for the next decade.

Tabling the analysis in the legislature, Waterland pointed to the comprehensive study as an expression of government's long-term commitment to our province's greatest natural resource and number one industry.

"To preserve and enhance our resources, we must first understand them, thoroughly," Waterland stated. "We must know the condition of our forest, those areas in particular that need management attention, the quantities of various timber species, the effects of current logging and management practices designed to study the most pressing issues concerning the maintenance and use of our forests and rangelands.

"The new Resource Analysis provides an in-depth look at the entire picture — that's why it's so essential for developing a sound, total plan for the development and use of our forest lands."

The analysis also pinpoints a number of challenges and opportunities in forest management.

### Pinpoint challenges

One finding is the continued decrease in productive forest land. The diminishing total is caused by withdrawals of suitable forest land for watershed protection and other uses of higher economic value. While about 43.3 million hectares of land are seen as best suited for forestry use, only some 22 million hectares are actually available for current timber harvesting. Other areas are inoperable for physical or economic reasons or are occupied by forests of questionable commercial value.

"People today expect far more from forest lands than in the past," Waterland said. "They want greater recreational use and more wildlife, aesthetics and general environmental protection. These are all valid uses of forest land. However, they do complicate the management of the timber and range components."

Among the complications in management are the natural hazards facing our forest. Prime concerns detailed in the Resource Analysis include brush problems affecting 2.9 million hectares of productive forest land and decadent timber covering another 5.2 million hectares. In addition, 28 million cubic metres of timber annually are destroyed by insects, pests and disease — in particular by the bark beetle, which causes widespread timber damage in British Columbia's interior.

Overcoming these problems can expand productivity in our forest, the Minister stated, adding that specific proposals for accelerated forest renewal and increased pest control measures are provided in the new Five-Year Program.

### Current achievements

The third document, the Ministry's 1983-84 Annual Report, reflects current achievements in dealing with continuing forest management challenges.

The report noted that while forest revenues rose in comparison with the previous year, the total figure of \$137.3 million was still only half of the \$360.8 million in revenues generated in 1980-81. Even so, there was a substantial expansion of the silviculture program, with a record 112.5 million tree plantings on

99,100 hectares of Crown and private land.

Planting programs also include the preparing of sites and the tending of plantations until a freely growing crop of trees is established.

The current planting program covers about 45 per cent of areas logged each year in the province, Waterland noted. He went on to explain that reforestation is not dependent solely on replanting, since much of the job is done by natural re-seeding. "For cost efficiency, we replant in carefully selected areas — we don't waste dollars by duplicating the planting effort of mother nature."

Waterland added, however, that natural restocking is not 100 per cent predictable. To assure adequate reforestation, extra planting is required. As identified in the Resource Analysis, there are additional benefits from replanting including a reduced time until the next crop of trees is produced, more uniform stands for better growth rates and even the potential for genetic improvement. In response, the Five-Year Program calls for a dramatic upsurge in seedling production and tree planting.

Expanding and improving the forest resource is only one side of the story, according to Waterland.

### Direction

"The other side is the end value we derive from our forest — value in terms of jobs and economic expansion." Here too, he stated, the Resource Analysis provides direction — offering a detailed assessment of marketing factors affecting future sales of our forest products.

The basic message is that simply cutting more trees is not the answer to a profitable, healthy forest industry.

"Added value from the trees we cut is the key," Waterland noted. "The analysis makes it clear that our future success in world markets depends on tailoring our wood production to meet specific customer demands. That can mean producing more high-value specialty lumber and paper grades, rather than simply continuing to produce basic

commodities for a declining market.

"The Resource Analysis indicates where the opportunities lie," Waterland continued. "The industry must meet the challenge by continuing to adapt to the changing realities of the marketplace. The current Five-Year Program shows that government will do its job, through a continuing commitment to sound forest management. In partnership with industry, we can develop our forest resource — and our forest products —

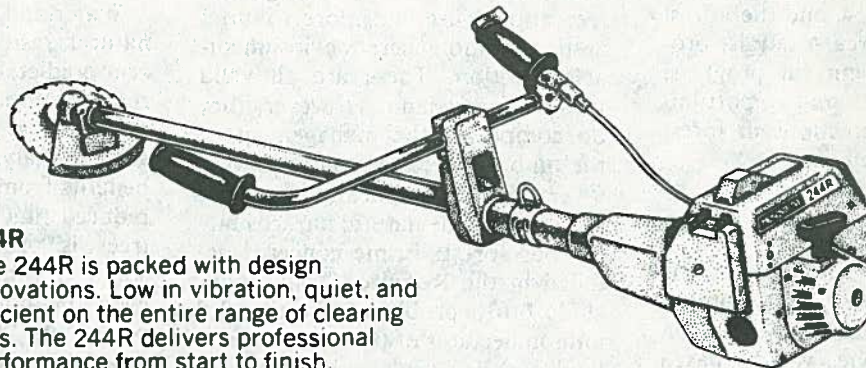
in ways that will sustain the value of the industry to British Columbia."

Waterland stressed that the latest Five-Year Program meshes closely with government's economic renewal program.

"In the short term, many new job opportunities will be created — particularly through expanded site preparation, planting of seedlings and brushing and weeding, which are highly labour intensive. But the

long-term implications are far more important, since the plan is a major part of the improved total management of our forest resource.

"This will lead not only to productive, bountiful forests for future generations," Waterland concluded, "but will provide the foundation for a more stable and resilient forest industry, able to offer secure employment for people throughout British Columbia." □



#### 244R

The 244R is packed with design innovations. Low in vibration, quiet, and efficient on the entire range of clearing jobs. The 244R delivers professional performance from start to finish.



**PACIFIC EQUIPMENT LTD.**

HUSQVARNA — PIONEER/PARTNER CHAIN SAWS  
OREGON PRODUCTS

**PETE WATTERS**  
Sales Manager

1420 East Georgia Street  
Vancouver, B.C. V5L 2A8

**CONSULT THE YELLOW PAGES FOR YOUR NEAREST LOCAL  
DEALER**



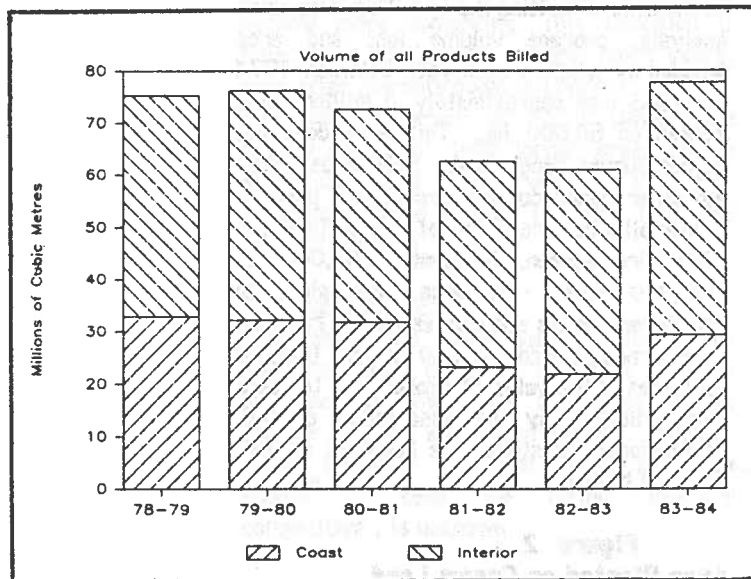
## THE STATUS OF B.C.'S TIMBER RESOURCE

This summary of the present status of B.C.'s Timber Resource is derived from the Ministry of Forests 1984 Five-year Forest and Resource Analysis. To all foresters, particularly the WSCA, the status of B.C.'s productive forest land and not satisfactorily restocked (NSR) land is of prime concern.

### HARVEST

The timber harvest over the past five years averaged 71 million cubic metres per year from 176,000 ha 85% of which were clearcut.

**Figure 1 Harvest trends over the past five years.**



### REGENERATION FACTORS

The amount of NSR land changes continuously as a result of restocking through natural and artificial regeneration, and denudation by logging, wildfires and pests.

The NSR statistics are at best only periodically updated estimates.

Since it is not currently feasible or cost effective to sample all areas annually, estimates of the changes occurring on unsurveyed areas are made through the use of "regeneration factors". These "Regeneration factors" take into account expected natural regeneration on unsurveyed or infrequently surveyed lands annually reducing recorded

NSR survey figures. These regeneration factors were derived from historical regeneration survey data and range from 25-60% (i.e. 75-40% of areas classified as NSR are actually restocked). For example in the past about 50% of all NSR lands and 40% of the good and medium site NSR lands turn out to be stocked upon field inspection. The statistics that MOF publishes are all reduced by these kinds of "regeneration factors" based on this expectation for future surveys.

### TOTAL PROVINCIAL NSR 1979-1984

In 1979 total provincial NSR lands was 1.92 million ha with 0.86 million ha on good and medium sites. (1.10 and 0.64 million ha, respectively after factoring).

In 1984 total provincial NSR (calculated in the same manner) amounted to 3.55 million ha with 1.23 million ha on good and medium sites (reduced to 1.63 and 0.74 million ha, respectively after factoring).

**Table 1 1979 and 1984 NSR Statistics**

Forest Region	(hectares)		(hectares)	
	All Sites	All Sites	Good & Medium Sites Only	Good & Medium Sites Only
	1979	1984	1979	1984
Cariboo	174,400	158,900	110,400	100,800
Kamloops	158,400	193,600	107,000	141,000
Nelson	262,800	244,000	174,200	156,800
Prince George	823,700	2,142,800	292,400	632,700
Prince Rupert	419,100	703,000	98,500	120,300
Vancouver	94,300	111,500	80,500	77,600
Total before factoring*	1,924,600	3,553,900	864,000	1,229,200
Total after factoring	1,095,200	1,634,500	644,600	737,900

- 85% increase in unfactored NSR over the past five years

- increase in good and medium site NSR lands amounts to 365,000 ha (42%), but after factoring the increase is only 93,300 ha, or 14%.

-five-year average increase in NSR translates to a loss of 19,000 ha per year or 9% of the area logged and burned annually.

-History Records (1979 -1983 ) indicate that at least 80,000 ha of forest land scheduled for planting were not planted and were still classed as NSR by the end of 1983.

- also, of the sites that were planted, only 50% were planted within the recommended period following denudation.

These shortfalls are ascribed to a lack of available or appropriate planting stock or operational problems such as drought, excessive rain, restricted access and inadequate site preparation .

In addition, NSR statistics include areas scheduled for planting but not planted, and other areas that have reverted to, or retained, NSR status because of plantation failure or unforeseen delays in natural regeneration. These statistics further explain the difference between the 80,000 hectare increase in NSR determined from the History Records and the 93,000 hectare increase in NSR indicated by survey data.

#### BRUSH COMPETITION

- brushing problems exist on 2.9 million ha of good and medium site NSR/DSD/NCBr, deciduous and SR types (MOF Silviculture Branch, 1984).

-42% of the good and medium site current NSR, 66% of the good and medium site backlog NSR and 100% of the good and medium site noncommercial brush areas require treatment.

These lands are of special concern as they both include some of the best growing sites and are among the most expensive to rehabilitate. Brushing problems also exist on some areas currently classified as satisfactorily restocked.

-in addition, an estimated 49,000 ha will be added annually in the absence of an adequate vegetation management program.

- estimates of growth losses on forest lands invaded by brush exceed 8 million cubic metres per year and are increasing at a rate of 0.2 million cubic metres per year.

These figures are high because they overlap some earlier growth loss projections and they assume total mean annual increment losses on all brushed-in sites although some growth will almost certainly occur where commercial species are established.

#### INSECTS, DISEASE AND DECAY

Losses to insects, disease and decay totalled about 28 million cubic metres annually, with over one-third due to bark beetles alone. Clearly, the opportunity exists for improvement in the future.

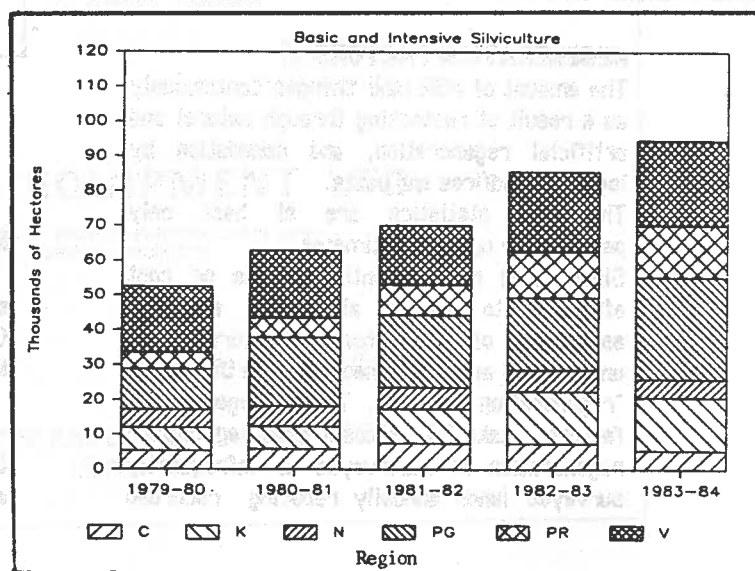
#### DECADENT STANDS

Based on inventories and professional judgements, decadent and stagnant stands are estimated at 3.2 million ha and 2.0 million ha, respectively. This amounts in total to about 13% of productive forest lands.

#### WILD [AND DOMESTIC] FIRES

At the time of writing the Five Year Resource Analysis, average volume lost and area denuded by wildfire each year between 1974 and 1983 was approximately 4 million cubic metres on 50,000 ha. This area does not include burned range lands, NSR lands, NCBr and other nonproductive areas, but they do include all other areas. As of July 22th of the 1985 fire season, however, 303,000 ha (748,410 acres - an area equivalent to Vancouver and its suburbs as far as Mission) have burned at a cost of \$50 million. Updated estimates of the value of timber lost to date from wildfire, by the Association of B.C. Professional Foresters, has been set at well over \$1 billion.

Figure 2.  
Area Planted on Crown Land





#### **BASIC AND INTENSIVE SILVICULTURE:**

- Figure 2 illustrates that the area planted increased from just over 50,000 ha to almost 95,000 ha between 1979-80 and 1983-84.
- number of seedlings planted increased from 58 million to 108 million over that same period.
- Brushing and weeding more than doubled from 2900 ha in 1979-80 to 7100 ha in 1983-84.
- Other intensive silvicultural activities decreased.

#### **HIGH GRADING**

At present, logging operations are largely confined to timber with the highest net value, while stumpage returns are at minimum rate. Without the annual high stumpage yields of the 70's justifying the silviculture budget has become more demanding. This condition is forecast to continue for several more years, even after markets begin to improve. High-value reserves of B.C.'s timber are rapidly depleting. With larger areas cut to attain the same timber volume, the long-established trend to take the best first has been accelerated.

#### **FUTURE HARVESTS**

This leaves the lower-quality wood to be harvested when the price of forest products increases or when new technology allows cheaper logging and manufacturing. Whether either condition will materialize and be enough to keep the forest industry competitive, is unknown.

#### **SUMMARY**

As stated in the MOF Forest and Range Resource Analysis it is the Ministry's responsibility to manage and preserve the resource.

Based on MOF's own figures from the five year Forest and Range Resource Analysis, the provincial government has never and is now not able to maintain the forest resource. A solution to this impending disaster in B.C.'s forests lies beyond provincial or federal-provincial politics.

Historically, no province has ever fulfilled the mandate to sustain let alone enhance the forest resource. The first step is informing

and educating the public to the real extent of the degradation of our forest resource. Public awareness and support are imperative for the implementation of actions necessary to revitalize this so-called "Sunset Industry" in British Columbia. This Newsletter is one attempt to educate and keep the public informed on issues that directly affect the integrity of the forest resource. You can help by supporting the WSCA Newsletter. Submissions of important issues affecting the Forest Industry will be very much appreciated.

## **STIHL® Wood Boss™**



### **Advanced Design for Serious Cutting**

Excellent for major firewood cutting or limbing operations. Easy to handle and quick to start. Requires little maintenance.

You can own the Wood Boss for the price of a regular saw. See it today.

**STIHL®**  
THE WORLD'S LARGEST SELLING CHAIN SAW

## THE STATE OF THE FOREST INDUSTRY

The following is the speech given by IWA Regional Director, Jack Munro at a luncheon at the Prince George Regional Forest Exhibition.

"A report from the Forest Economic and Policy Analysis Project (FEPA) gives every British Columbian one more compelling reason to ask himself, 'What are my children and grandchildren going to do for a living?' This report notes that much of the timber that has routinely been incorporated in commercial inventory is distinct from manufacturing facilities, smaller, of relatively poor quality, and often requires expensive steep-grade road building to get at. Specifically, they estimate that 30 to 40% of the wood will be noneconomic by the year 2000.

So they conclude that—apart from tech change—another seven thousand jobs could be lost from our present low of 75,500 —including "spin-offs", perhaps an additional loss of 20-25,000 jobs.

All this, by the way, is confirmed by the Provincial Government's own Forest and Range Resource Analysis, released a few weeks ago:

"What is evident from this analysis is that the present forest resource cannot, without significant changes in management policies and programs, continue to support current harvest rates and still meet the long-term objectives of sustained yield.

As discussed in Section C, reforestation is not meeting that objective and brush competition and insect pests are curtailing growth of established stands. Consequently, long-term harvest will fall below projections and thereby aggravate the decline or fall-down from present harvest levels.

That the high value of the supply is being depleted becomes an inescapable conclusion when the species and locales of present operations are considered. Relaxed utilization standards aggravate this problem by increasing the area cut to



**By JACK MUNRO**  
**IWA, Regional Director**

attain the same volume of harvest. In effect, the long-established trend to take the best first has been accelerated, leaving lower quality wood to be addressed when new technology allows cheaper logging and manufacturing. But whether either factor will materialize is unknown. Unless current trends undergo a major reversal, the lower valued wood supply will be faced in economic conditions that are no better, and likely worse, than those experienced in the past."

Well everyone here knows all this, and if the media would read and report a few paragraphs beyond the Public Relations news releases, the population generally would know it.

The problem, of course, is that those of us who do know it are all saying, "There is a real problem. Somebody ought to do something about it." So there is general agreement that somebody ought to do something, but no agreement that somebody ought to do something, but no agreement about who the somebody is, or what the "what" is.

So here is the IWA's proposal, to sort of break the log-jam. It is a five or six-point program, depending on how you count the points. Or you could call it our "five and one-half" program.

We propose the establishment of a \$600 million forest endowment fund, to be created by the Provincial Government.

As you know, this would represent no basic departure from present Provincial Government policy. They are already spending hundreds of millions annually on our capital structure. Six or seven hundred million so far for Northeast Coal, an expected



loss of from \$311 to \$500 million on Expo, \$430 million this year on the Coquihalla, \$300 million net on Dunsmuir-Cheeskey power.

Our proposal is different only in that, as demonstrated by Federal Forestry officials and others, it would have a positive return on the capital invested. We ask them to make an exception and waive their rule against profitability.

We suggest that such a fund could be trusted by representatives of Government, private industry and labour, and by such people as Les Reed, Bill Young, and Professor Jack Walters. People with proven knowledge of, and commitment to B.C.'s forests.

Invested at 11%, with the Fed's matching, plus \$120 million from the industry under some equivalent of Section 88, plus the present \$55 million budgeted by the Province, we would have \$280 million or so annually.

The B.C. Professional Foresters estimate that to replant the back-log NSR and do a minimum on current NSR would cost \$160 million.

We don't like to argue with foresters about forestry, but it seems to us that goal, of planting 50% of harvest and leaving half for "natural regeneration" is pretty primitive.

Sweden, with half the forest land that we have and a slightly larger harvest—75 million cubic metres annually—plants over 400 million annually. We are currently boasting that we will soon get to 200 million. Setting aside the reservations you have to have acquired over the past few years about the likelihood of achieving announced goals, we think that the 50% is too small, especially if, as at present, we are harvesting only the best lands. So we propose \$175 million in planting — which means some heavy front-end expenditures on nursery capacity.

We propose \$20 million or so a year for repatriation of some of our best land, back to forestry, usually from starvation agriculture. Along with that, we propose that Federal, Provincial and local governments stop punishing people for growing trees. The Federal Government must, as it sets about de-corrupting the income tax system, allow tree-raisers at least the break that it allows to race-horse raisers.

**\$175 million in planting required**

The Provincial Government must begin now to offer the same advice and assistance to tree-raisers as it does to Apaloosa-raisers. It can provide seedlings and fertilizer and advice to private forestry on the same basis as it does to other kinds of agriculture.

Finally, municipalities must stop taxing on the growth increment on un-harvested timber. Everybody knows that private land is only about 5% of the total. What everybody does not know is that that is the land where trees grow fastest, best, can be harvested most economically, brought most economically to mills, and with least impact on the environment.

So that's the private forestry proposition. ▶

#### **DONATIONS**

**The Western Silvicultural Contractor's Association is presently registering as a nonprofit organization. Corporate or private donations to the association are very much appreciated and will be tax deductible.**

**For more information please contact the W.S.C.A's head office.**

#### **ASSOCIATE MEMBERSHIP**

**Industry and Ministry Foresters-- Associate membership in the W.S.C.A is \$75 per year. Get your company or Ministry budget to include keeping you informed while supporting ethical action in silviculture. We are the only association representing this critical industry.**

**W.S.C.A MEMBERS: JUST A REMINDER TO  
PAY YOUR ANNUAL MEMBERSHIP DUES**

There would remain about \$100 million. We propose that that be divided judiciously between launching a major R&D effort and intensive silviculture. At the beginning of the program, that would be concentrated heavily on silviculture—releasing stands, and so on.

But real effort into finding the right people and getting good momentum on a public R&D effort would have to begin immediately. We propose this, for the same reason as we make proposal #5, because we believe that a realistic appraisal of the major international corporations that dominate our industry leads to the conclusion that they are unlikely to solve our R&D problem. It is, after all, not an accident that Canada spends the smallest percentage of GNP on R&D of any industrial nation, or that, within Canada, the forest industry spends the least.

It is not realistic of us to expect Weyerhaeuser to break its neck to find new ways for B.C. wood to compete with its major U.S. holdings.

Even with a company like M-B, it is easier, more practical for them to ship high-labour content products like plywood from their Alabama plant, and low-labour products, like pulp, (or, worse, raw logs) from B.C. These natural tendencies, which promise best returns for their shareholders, are so powerful that it is silly to suppose that some "incentive" for R&D will change the pattern significantly.

So a major drive on R&D has to come from you and me, the public, from the people who worry about what jobs will be available for their children.

### **R&D essential**

Now for the kicker, as follows:

With a major increase in planting, a real effort in private forestry and in intensive forestry, we should over time be able to expand our cut in a major way. We believe that even making allowances for the non-economic timber, we ought to be able to harvest 100 million cubic metres. Sweden harvests 75 million on half of our land, and today has more standing volume and more annual increment than they have had since they started to measure in the twenties. And

that's with half of our land, and without any of our best land.

We believe that at least half of the increment has to be reserved for new entrants into the industry.

We also believe, in order to make entrance into our industry possible, that there has to be some kind of publicly-assisted marketing agency. We do not believe that we should restrict independent entry to firms large enough to establish sales offices all over the U.S., Asia and Europe.

We believe that the present program for "making room for little guy" is impractical and self-defeating.

You cannot get substantial new entrepreneurial investment when the operation depends at both ends, both for supply of logs, and for market-access, on some other firm that is 100 times as big.

The facts are, for example, that our plywood industry is being thrashed by loblolly pine and particleboard. Nobody from B.C. invented that special glue, or any equivalent of it. Nobody from B.C. developed the particleboard thing, or any equivalent of it. The majors in this industry don't have to. They can sell B.C. logs and pulp, buy foreign technologies and establish plants elsewhere. If it was possible to doubt, ten years ago that that is what they would do, it is no longer possible.

Our existing timber supply is seriously over-committed. One of the advantages of our program is that it supplies a neat incentive to the majors - they will get only half of the increase, and if, at some given level, that isn't enough to run the plants, they better see to it that the level increases.

### **Timber over-committed**

It should be clear to everyone in B.C. that for the past one hundred years, we have failed as a society to put the required effort back into the forest.

A lot of money and care that should have gone into the forests went elsewhere.

That money was spread pretty broadly around. A lot of it, I suppose, filtered off into other parts of the world and is now beyond our reach.

But engineers and lawyers and P.R. people who for decades charged substantial



fees to forest industry companies obviously got a good deal of it.

A good deal of it has been spent on hair-brained schemes to establish high-tech free enterprise zones.

Quite a lot of it went to establish the infra-structures of roads and railways over tough terrain, to build schools and hospitals, and a thousand other things.

In short, the part that didn't leave the Province was widely spread around. The responsibility for correcting it is equally wide-spread, and so will be the benefits.

The Swedes, who have been practicing this kind of thing for a couple of generations, now employ 207,000 people on half of our forest land. Fifty-seven thousand of them are forestry workers, planting trees or thinning or fertilizing.

They make a decent living. Every last one of them, for example, is guaranteed five weeks paid vacation, and since 1977, their unions have under law in most cases the right to veto subcontracting proposals. In addition, the forest industry makes a major contribution to their very comprehensive array of social services.

#### **Swedes employ 207,000**

I emphasize these things not to suggest that we have to spend the proceeds from our industry in the same way, but just to illustrate that there are proceeds.

Those who don't like the forest, or don't want to support the efforts required to sustain it, should be challenged.

If they think that \$5 per hour jobs assembling electronic gadgetry is the industry that should be supported, they should be asked how many jobs that can sustain at what wage rate, etc.

They should also be asked whether they want their own kids to work there.

The most authoritative estimates we have suggest that the world has to come up with an additional 70 million or so cubic metres of fibre by the turn of the century, and to get that increased supply from a land-base that is shrinking at about 50 acres per minute.

We can make a good and honest living with an economy based on that industry.

That will provide a kind of society without the extreme inequalities of income that characterize the high-tech havens, like Singapore, which the Provincial Government so admires, and which requires a police state to maintain.

In the bargain, we can have fish and game and oxygen.

When our kids or grandchildren, 30 years from now, ask us why it is that they can make a decent living, why they are protected by labour unions, why they breathe good clean air, why their governments can afford a comprehensive range of social services; we can explain that it was because, as a society, we got together in 1985, '86, and made sure of those things.

Of course, there is an alternative."

This article was reprinted from the May, 1985 issue of 'The Chipper', a monthly IWA publication.

#### **SECTION 88 TAKES COLD SHOWER**

In April the Treasury Board instructed the MOF to **increase competition.**

An incredulous silviculture industry watched as the MOF, COFI, and NILS negotiated away all the preferred relationships that had evolved with licensees under Section 88 planting through extra effort and quality work performance.

Although COFI assured contractors that they were not interested in inheriting the kind of problems that occur on the open market Ministry contracts and that they would defend their preferred contractors relationships, it appeared in the end that a trade off took place since MOF refused to budge on the low bid issue.

# Forestry, 2,000 A.D.



by: Bill Moore

In less than sixteen years we will enter the new century. The one with the funny numbers that have a ring of space and moon travel. It's an exciting thought. Are you ready for it?

Is anybody in the forest industry ready for it? I suppose the trees will be because they'll just add on another ring, same as they did back in 1900 or 1800. That is, the trees that are growing.

For you see, there will be a lot more space that doesn't have trees growing — maybe just bush — because of the present political decisions across Canada concerning silviculture and planting practices.

We have been given warnings by the eminent men of forestry in our country that we cannot continue to intensively cut — as we are doing — without substantial increases to our forest husbandry practices.

In spite of the warnings and clear facts put before provincial and federal governments, answers come back from our political people that there are other priorities more needing and the recession is the culprit.

We know we are on dangerous ground with our lack of forestry research and our lack of silviculture and planting. Anyone who would argue the case is simply refusing to look at the facts.

But do we know that we are on far more dangerous ground regarding the forest education of our people, particularly our young?

For years there has been a hue and cry across the land from the leaders of our forestry schools and forest research institutions that not enough money and talent is being put into all phases of forest education and forest research.

Forests and forest products have been a dominant force in our Canadian economy during all the boom building

times since the Second World War. They can continue that dominance if we obey some simple rules. With a renewable resource you put back what you take. We are not doing that in our forest policy. And you also make positively sure that you have a steady supply of well trained and motivated people coming along who can harvest, tend and research the crops of the future.

We constantly read in forestry periodicals about lack of research and lack of educational needs. In a way that's the informed talking to the informed. It's a shame that these stories can't be presented — with headlines — in our public's daily literature. But then — I wonder just how interested most of the public is in such news!

They undoubtedly are interested in great forest fires — or monster harvesting machines — but I doubt that the average Mr. and Mrs. Public care much about the technicalities of our forests.

Great amounts of money have been taken in over the years for the general revenues of provincial and federal governments from our forest resources. The totals would be staggering if you counted the taxes of corporations and work force — the stumpage and royalties and the various taxes on forest related machinery.

It has always been a bone of contention that while a lot of money goes into the government from our forests, not near enough comes back out to protect our forests' future.

The reason for the above would lie somewhere between people in govern-

ment not really realizing the importance of our forests and their resources — to an apathy that the resource is unlimited.

Provincial governments are the landlords to most of the forest growing land in Canada. They set their standards and they are responsible for overseeing of the crop. In the United States, privatization of forest land is common and therefore the private companies hold a different outlook on what is theirs, against what the companies in Canada simply lease. There is a difference, Charlie!

The recession has hurt and no one makes light of that fact. And in order to stay in business, West Coast companies are exporting more and more logs to foreign countries. The shame here is that research in the golden years awhile back might have given us more secondary industries today so we could get better value for our trees.

My point of all this is that we have never taught the public who live outside the realm of forests and forestry that this great renewable resource has to be cared for with intelligence and determination. This is a huge subject spread across 5,000 miles of land and it has variable regions, variable problems and many variable critics.

We can't reach that public when school teachers don't understand that renewable resource. And few do.

We can't reach that public when the media don't take the time to tell the complete forest story. And often they don't.

We can't reach the public when our own large forest companies don't understand how to get their own message across. There is a long way to go for most of these companies to gain the trust of the public. And that has been



## Bill Moore

brought about by the sort of quietness and secrecy they work under.

We can't reach the public when we — government and industry — are not putting enough intelligence and money into solid educational associations and institutions that will attract young and old — but especially young — to be respectful of forests as so many in Europe are.

I have seen and continue to see good forest associations and organizations scrape the floor for nickels and dimes to exist on, in order to impart some knowledge of our forests to our youth.

When do we wake up and realize that we are moving into a new age, that will require new skills, bright ideas, and bright idea people to keep our forest industry competitive in the 2000 ADs? We need an army of young people coming along who certainly won't be foot loggers or green chain pullers.

We need to impart to young people the true values of parks and wilderness areas. Not the blind — "don't touch" — but the intelligent process of "thinning the carrots" principle that real gardeners practice.

We need to counter the ignorance of those who refuse to see the full picture of forests and forestry with common sense use of all forests.

We need intensive research into our so called "allowable waste" ideas. We are laughed at by those from other lands who come here and see the great slash areas with too much fibre left on the ground.

We need to show the media and get their trust in our plans for future forest endeavors. And we need ideas yet unborn to find uses for the world renowned fibre that the forests of Canada produce.

One should remember that as jobs decrease in the logging and milling sec-

tor of our industries due to new technologies, jobs should increase in new secondary industries that can be created from our forest fibre.

We have been by nature careless about the tending of our forests, careless about a simple thing like putting out camp fires, and careless about our utilization. New generations yet to come should be taught to appreciate their forests and to use them with common sense and appreciation.

We won't instill that spirit in anyone better than our young. For they can grow with a sound forest appreciation if we do our teaching correctly.

It's a good time for forestry people to reassess our future needs, for we are

hopefully turning the corner on some difficult times.

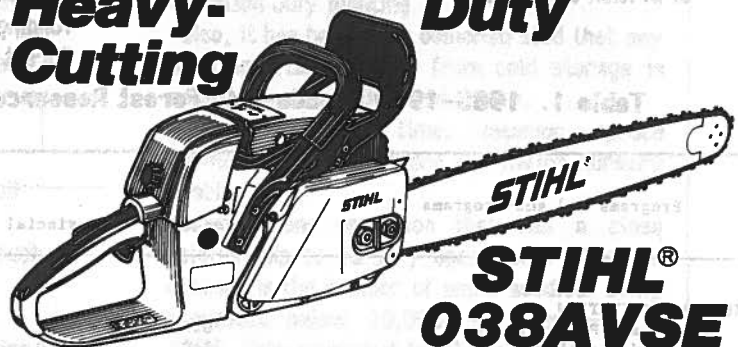
Among those considerations a priority should be given to a far better opportunity for our youth — and also our public — to be presented with new ways to understand and respect Canada's forests and her forestry programs.

Let's give the gang in 2000 AD a little more than space suits — let's give them something down to earth, like a good sound forest education from kindergarten to college.

Keep out of the bight,

*Phil Moore*  
Bill Moore

## The Professional Mid-Size Saw for Heavy-Duty Cutting



Designed with the professional logger in mind. Excellent as a pulpwood or heavy-duty limbing saw. Built to stand up in cold, icy conditions as well as hot, dry climates.

A unique saw that features high power, low weight and the latest in human engineering.

# STIHL®

THE WORLD'S LARGEST SELLING CHAIN SAW



**Transcanadian  
Reforestation  
Suppliers, Ltd.**

6337 Laurel Street  
Burnaby, B.C. V5B 3B3  
(604) 294-9544

# CANADA - BRITISH COLUMBIA FOREST RESOURCE DEVELOPMENT AGREEMENT SIGNED

VANCOUVER— A \$300 million, five-year, co-operative forestry agreement which focuses on the replanting of not-satisfactorily restocked lands as well as intensive forest management and associated research was signed on May 25, 1985 by Federal Minister of State (Forestry), Gerald S. Merrithew, and British Columbia Minister of Forests, Tom Waterland.

Under the Agreement, the federal and provincial governments are committed to spending a total of \$150 million each from 1985 to 1990, with \$11 million each to be spent in Year 1; \$22 million each in Year 2; and \$39 million in each of Years 3, 4 and 5.

The Agreement was signed under the auspices of the Canada-British Columbia Economic and Regional Development Agreement (ERDA), which was signed on November 23, 1984. The ERDA was established as a means of achieving greater federal-provincial cooperation and coordination in realizing the economic and regional development potential of the province of British Columbia.

This Agreement recognizes the need for backlog reforestation and for intensive management of young stands to ensure their growth.

This Agreement calls for the reforestation of backlog not-satisfactorily restocked (NSR) Crown provincial forest lands deforested by harvesting, fire or pests. Under intensive silviculture about 150,000 hectares of juvenile tree stands will be spaced and fertilized to promote more rapid growth, with an additional 36,700 hectares receiving other silvicultural treatments such as brushing, weeding and conifer release. These programs will add approximately 600,000 cubic metres annually to the future sustainable yield and provide 500 long-term jobs.

Over the term of the Agreement it is expected that 15,000 person-years of employment will be generated in forest management. Most of this work will be carried out by the private sector in areas where unemployment and resource depletion are prevalent. Table 1 breaks down the funding for backlog reforestation and intensive Forest Management over the next five years.

**Table 1. 1985-1990 Canada-B.C. Forest Resource Development Agreement**

Programs and sub-programs	Federal	Provincial	Cost-Shared		Sub-Program Totals	Program Totals
			Federal	Provincial		
<b>1. BACKLOG REFORESTATION</b>						
1.1 Surveys and Prescriptions	0.5		1.5	1.5	3.5	
1.2 Seeds and Seedlings	2.0	21.0	21.3	21.3	65.6	
1.3 Site Preparation	4.0	-	26.6	26.6	57.2	
1.4 Planting	3.0	-	20.6	20.6	44.2	
1.5 Implementation	5.0	-	-	-	5.0	
1.6 Extension, Demonstration and R&D	4.0	6.0	7.0	7.0	24.0	
Program Totals	18.5	27.0	77.0	77.0		199.5
<b>2. INTENSIVE FOREST MANAGEMENT</b>						
2.1 Brushing, Weeding and Pest Control	2.0	1.0	4.0	4.0	11.0	
2.2 Conifer Release	1.0	-	2.0	2.0	5.0	
2.3 Juvenile Spacing	4.5	-	20.0	20.0	44.5	
2.4 Fertilization	0.5	-	10.0	10.0	20.5	
2.5 Implementation	2.0	-	-	-	2.0	
2.6 Extension, Demonstration and R&D	1.0	2.0	-	-	3.0	
Program Totals	11.0	3.0	36.0	36.0		86.0
<b>3. IMPLEMENTATION, COMMUNICATIONS AND EVALUATION</b>						
3.1 Implementation Contracts, Monitoring and Evaluation	0.5	-	6.0	6.0	12.5	
3.2 Communications	-	-	1.0	1.0	2.0	
Program Totals	0.5	-	7.0	7.0		14.5
<b>TOTAL - By Type of Funding</b>	<u>30.0</u>	<u>30.0</u>	<u>120.0</u>	<u>120.0</u>		
<b>TOTAL - ALL Programs</b>						<u>300.0</u>



## PRIORITIES AND NEW DEVELOPMENTS IN SILVICULTURE

In a speech given by C.M. Johnson, Director of the Ministry of Forests Silviculture Branch, at the Southern Interior Silviculture Committee (SISCO) meeting, March 5, 1985, new developments in silviculture were outlined.

-1985 almost all interior nursery stock for all species will be freeze-stored, because less carbohydrate storage is lost with this type of storage and better control of Botrytis is maintained in the storage process.

-this change in storage will require much better planning of planting operations and careful scheduling a week in advance of stock shipments for planting.

-in 1985, root pruning was drastically cut back due to better root culturing procedures in the nurseries

-in 1985 the implementation of a spruce monitoring program with the Regions and Research Branch staff will gain a better appreciation of the weaknesses in our spruce establishment process.

-a root growth capacities (RGC) testing procedure for representative seedlots of all species at all nurseries, will also be implemented. Results will be available through the Regional Silviculturalists.

-frost hardiness tests on representative seedlots of all species that determines lifting schedules and dates will be conducted in the individual nurseries.

-frost hardiness results also appear to be highly correlated with RGC.

-in 1985, 400,000 pine will be operationally treated with copper carbonate at a number of nurseries for better root development in this species.

-28 million 2-0 interior spruce containers were sowed in 1984, with 40 million to be sowed in 1985, (the 2-0 spruce container program will significantly improve plantation performance plus reduce seedling costs and cold storage costs, provided we can depend on the field forester to take volumes of this

stock type through July, August and September).

-from RGC tests, it can generally be stated that spruce container stock is pretty much double that of 2-0, 1 plug - 1 and 2-1 bareroot spruce stock.

-change from bareroot to container in Ministry nurseries will continue.

-conversion of bareroot spruce to 2-0 container spruce can be done with minimal capital funding, and compared to bareroot transplants, significant cost savings can be made. Surrey Nursery is developing an open compound for 7.5 million 2-0 spruce seedlings at a cost of \$500,000. This will result in a 10 cents per tree saving in nursery costs over bareroot transplants, or \$750,000 in reduced nursery operating costs. Survival rates are estimated to increase 17%, providing planting savings of \$34,000 for every million trees or \$155,000 for the above 7.5 million trees. Significant improvements in early plantation establishment and growth are also anticipated.

-2-0 spruce containers should be seriously considered for any southern interior high elevation July planting

-also, it has been fully demonstrated that any planting after June 30 from cold storage is really a waste of time and money.

-at the present time, interior spruce downfalls of 15-20% are our major nursery problem.

-seed is one operation that has a close relationship to nursery operations. Of major concern is the number of small seedlots being requested below 10,000 seedlings — in 1985, this amounted to 350 seedlots. This very seriously affects the efficiency of the nursery operations.

-seed collections over the past two crops have substantially improved, germination capacities being in excess of 80% (large volumes of low germination seed collected in previous years still exist).

-Dr. George Edwards of the CFS has developed research techniques (IDS - Incubation, Drying, Sorting) to improve low germination rates of PI and spruce seedlots upgrading germination capacities to 90%+.

-a new seed centre is needed to ensure security and adequate storage of the Province's seed inventory. Present seed storage is at risk to losses from flood

damage, fire and vandalism. Any portion of our seed inventory lost, could take up to 10 to 15 years to replace.

- efficiency of nursery operations would increase using fewer seeds for sowing, with fewer empty container cavities at the nursery. Based on recent experiences, 30-35% of seeded cavities result in blanks or unplantable seedlings. The cost of this loss is estimated to be \$2.3 million annually.

- since planting started in 1939, over 1.1 billion seedlings have been planted on over one million hectares of land. Other cutover areas were left to regenerate naturally.

- current estimates of areas invaded by brush, however, indicate that a significant proportion of B.C.'s most productive forest sites (i.e. good and medium sites) have some brush problems.

- about 500,000 hectares of backlog and current NSR areas need some vegetation control. In sufficiently restocked (SR) areas with acceptable coniferous species, over 237,000 ha require immediate vegetation management or the young conifers will be lost.

- brush areas (all inventory groups including predominantly deciduous, etc.) total of about 2.9 million ha or 7,500 Stanley Parks.

- by the current rate of annual forest denudation, over 48,000 ha (25% of the total area harvested in the Province annually) or 120 Stanley Parks are expected to be added annually to the existing brush areas in the Province if no proper management action is taken.

- based on the mean annual increment (MAI) established for unmanaged forests in B.C., the total potential annual losses at culmination age (rotation) for the 2.9 million hectares of brush areas have been estimated that 8.3 million cubic metres of wood, or enough wood for 65,000 houses - \$52.1 million stumpage and \$717 million in shipment value.

- the quality of planting stock has increased dramatically over the years. However, no comparable level of improvement in the quality and quantity of site preparation is being realized, in fact, this is the weakest link in the reforestation chain of events.

- forest practitioners must ensure that site preparation is not creating overstocked lodgepole pine stands

- greater consideration to all-season burning must be taken to ensure that prescribed burns

are completed within the very limited number of burning windows.

- Silviculture Branch has recently completed the prototyping of a new mechanical mounding machine which has great opportunity for improving the biological and growth performance of interior spruce, particularly in the two northern regions of the Province.

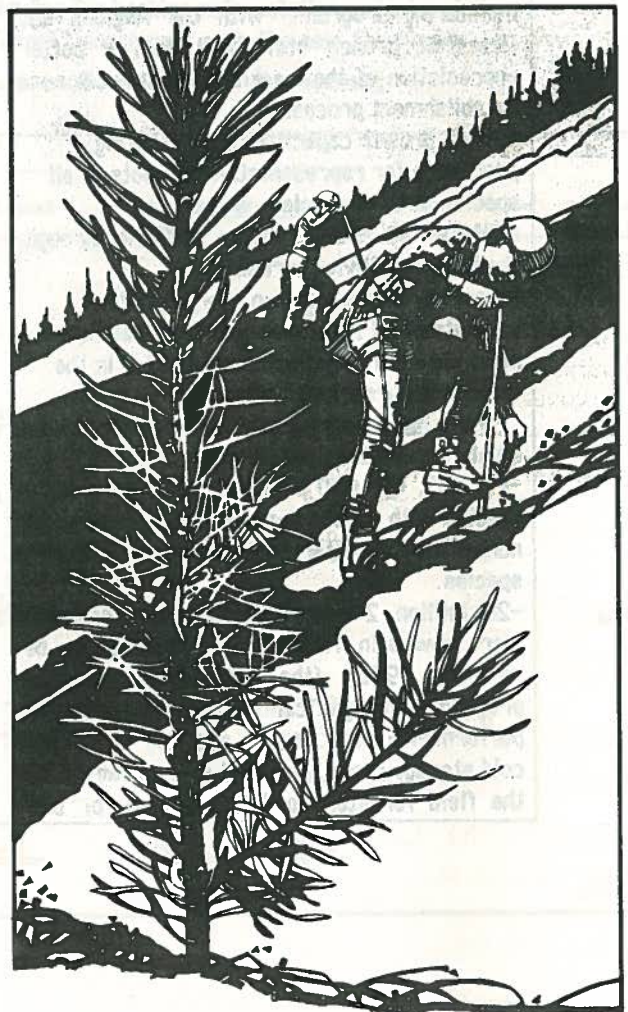
- in 1985 sowing requests amounted to 245 million seedlings compared to 235 million in 1984

- 155 million seedlings were sown in 1984 and another 17 million will be sown in 1985 under the Federal-Provincial Program

- lodgepole pine sowing is up 8 million seedlings at the expense of interior spruce.

- finally, the Ministry's Task Report on Grass and Trees has been completed. A great deal more communication between agrologists, foresters, ranchers and the timber industry must take place.

SISCO could serve a significant service by directing one of their seminar sessions toward grass-tree problems and directions.





## **BILL M201 - 1985**

### **FORESTRY FOR THE FUTURE ACT**

Frank Howard MLA for Skeena-Kispiox has proposed Bill M201 for the establishment of a "Future Forestry Fund" deserves the support of all contractors and foresters.

This bill recognizes that:

- a secure economic future with attendant social, cultural and environmental values will require integrated and carefully developed forest enhancement programs.

- the reconstruction of our forest resource base and its future are too important to be left exclusively to the whims, vagaries and uncertainties of current government policies

- British Columbians have the initiative, intelligence, ingenuity and skills to employ silvicultural practices for lasting benefit to this and future generations.

The purpose of the fund is to ensure continuity of funding for the enhanced management of the forest resources of the Province of British Columbia and, without limiting the generality of the foregoing, to provide such funding for all aspects of silviculture so that forest land that has been denuded of timber shall be satisfactorily restocked with commercially valuable species of timber.

Section 1: defines silviculture

Section 2: establishes a 10 year Forestry for the Future Fund. Provides for annual payments to be made to the fund; for discretionary additional payments to be made; and for private contributions thereto.

Section 3: provides that the purpose of the Forestry for the Future Fund is to ensure continuity of funding for all aspects of silviculture.

Section 4: establishes the Committee on Silvicultural and Forestry Enhancement (COSAFE) which is structured in such a way that it will be free to carry out its purposes without interference. Provides further that COSAFE report annually to the Legislative Assembly.

Section 5: provides for a third-party, arms-length administration of the Forestry for the Future Fund through a Trust Company which would, pursuant to the Trust Company Act, act in a trust capacity for the people of British Columbia. Provides further that the Trust Company report annually to the Legislative Assembly.

### **W.S.C.A NEWSLETTER SUBSCRIPTION**

The W.S.C.A Newsletter is a quarterly publication. As the W.S.C.A is a nonprofit organization, established to promote professional quality standards in British Columbia's silvicultural industry, it was hoped that this Newsletter could be circulated free of charge. However, this has not been the case. Printing and mailing costs alone have proven to have eaten up the associations meager budget, therefore, we must charge a subscription fee to cover such costs in the future.

An annual subscription fee of \$16.00 will be charged, or \$5.00 per single copy. The W.S.C.A Newsletter is the only medium in British Columbia that addresses important silvicultural issues in such a critical industry. We need the support of foresters in all facets of our forest industry. Please, mail your subscription fee to:

**W.S.C.A  
2778 Millstream Rd.  
Victoria, B.C.  
V9B 3S6**

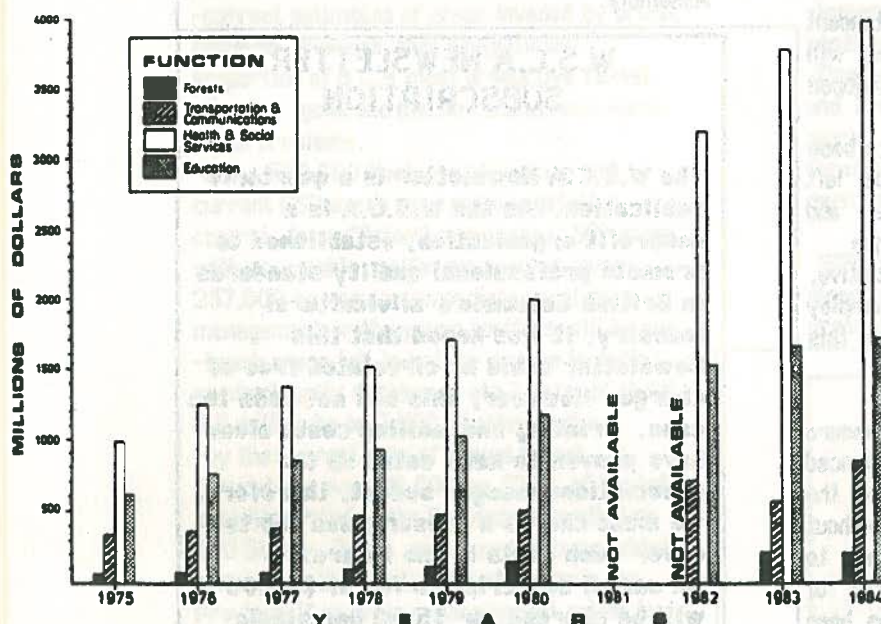
Also, a donation to cover the cost of the Anniversary issue would also be very much appreciated.

With your monetary support, informative input and critical feedback on important issues affecting the silvicultural industry in B.C., government, industry and the public will be more accurately informed and updated on the status of their most valuable renewable resource.

## FORESTRY BUDGET VS. EDUC., TRANSP., AND HEALTH

How do expenditures on Forestry compare to the amount spent on Transportation & Communication, Health & Social Services and Education? Figure 1 graphically demonstrates significant increases in spending in all functions over the past 10 years, except forestry.

**Figure 1. Expenditure by Major Function**



Forestry pays for almost half of the bills in the Province. So little is put back into our most important renewable resource because our foresters, contractors and planters are not doing the job of informing the public about the need for forest renewal.

The information in Figure 1 was freely obtained from the Public Accounts-Province of B.C.

## SPRAYING GIVEN THE GO-AHEAD

The following is a summary of an article by Jim Stirling in B.C. Lumberman, January, 1985. The prospect of such relatively rapid results was one reason the B.C. Ministry of Forests and several companies in the Prince George Forest Region were anxious to aerially spray herbicides on an operational basis on selected, recently reforested areas.

A second reason is such action is deemed essential to get the fastest maximum yields from forest lands.

Foresters know that politicians have yet to grasp, that simply sticking tree seedlings of commercial species into the ground does not equate with successful reforestation.

The controlled aerial application of approved herbicides is the first of perhaps several steps that may be necessary over the long term to achieve that fastest maximum yield goal.

Herbicides can remove brush, weeds and non-commercial species that rapidly encroach planted sites beating out the conifers in the competition for light, nutrients and space.

Herbicides provide a critical breathing space.

The chemical that kills the unwanted material doesn't persist in the soil but breaks down. By the time the vegetation makes a come-back the seedlings are larger and better able to handle the competition.

There's an economic as well as a common sense side to spraying. The cost of growing the seedlings, preparing a site and planting can easily mean an investment of \$700 a hectare. Risking that investment by leaving the young trees to fend for themselves, means trees that don't grow, volumes that don't materialize and down-the-line reductions in allowable cuts and jobs.

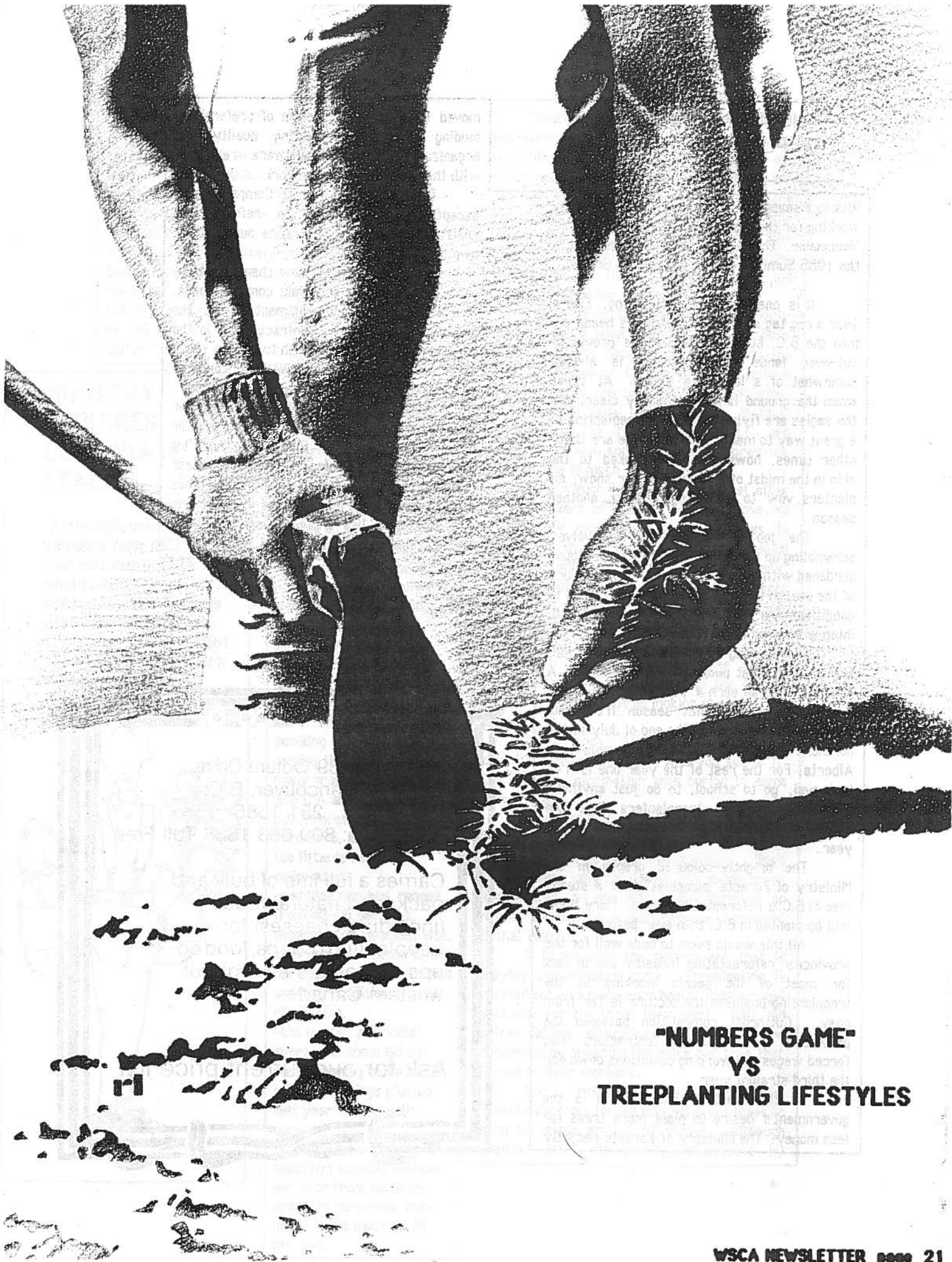
The use of chemicals in forestry is well regulated. The herbicides can only be administered under the supervision of a government certified person, usually a forester who has successfully taken a week-long provincial government course. Crews are instructed in the safe storage, handling and application of the herbicides, provided with protective clothing and generally educated to treat the materials with respect.

Forestry Consultants  
Pennyroyal Resources Ltd.  
2778 Millstream Road  
Victoria, B.C. V8B 2S6  
478-2969

**pennyroyal**  
Resources Ltd.

**Complete Silvicultural  
Services**





**"NUMBERS GAME"  
VS  
TREEPLANTING LIFESTYLES**

## **"NUMBERS GAME" VS TREEPLANTING LIFESTYLE**

**Rick Klein**

Rick is a seasoned treeplanter and is currently working for the Institute of New Economics in Vancouver. This article originally appeared in the 1985 Summer edition of Common Ground.

It is one of the rites of spring. Every year a rag tag army of treeplanters heads off into the B.C. bush to restock the provinces cut-over lands. Treeplanting is always somewhat of a love-hate affair. At times when the ground is good, the sky clear, and the eagles are flying overhead, treeplanting is a great way to make a living. There are those other times, however, when soaked to the skin in the midst of a logging horror show, all planters vow to never again work another season.

The job is not easy. It involves scrambling up and down steep mountain slopes burdened with a heavy load of seedlings. Much of the season is spent in remote tent camps in conditions varying from snow and rain to intense summer heat.

Treeplanting is a very demanding job, but one that most people find worthwhile. A good planter can earn a year's income in the space of a five month season from late February on the coast to the end of July in the northern parts of British Columbia and Alberta. For the rest of the year one is free to travel, go to school, to do just anything. Unlike most people, treeplanters have the luxury of being able to quit their job every year.

The brightly-coloured graphs in the Ministry of Forests' pamphlet show a steady rise in B.C.'s reforestation effort. More trees will be planted in B.C. than ever before.

All this would seem to bode well for the province's reforestation industry but in fact for most of the people working in the treeplanting business the picture is far from rosy. Cutthroat competition between the province's reforestation contractors has forced wages and working conditions down for the third straight year.

At the heart of the problem is the government's desire to plant more trees for less money. The Ministry of Forests recently

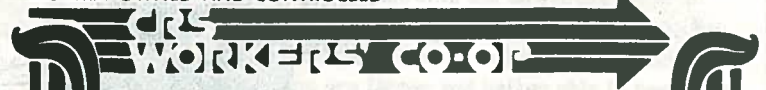
moved to eliminate a system of preferential bidding in which planting quality and organizational competence were rewarded with the prospect of future work.

From now on a Forest Company must accept the lowest bid on reforestation contracts or pay the difference out of their own pockets.

On the surface the new changes appear to be motivated by economic common sense. A free enterprise commitment to let the cheapest bid secure the contract. But in the treeplanting business the push to reduce short term planting costs may well be counter-productive when tree survival is considered.

Anne Mauch is a professional forester who has worked as a planting supervisor for Weyerhaeuser in B.C. She fears that "by forcing Forest Companies to accept the lowest bid contractor, we will see many more trees planted by inexperienced gypo contractors. And companies like Weyerhaeuser will bear the increased cost of supervision."

WORKER OWNED AND CONTROLLED



1239 Odium Drive  
Vancouver, B.C.  
251 1585  
In BC/Alta: 800 663 1838 Toll Free

Carries a full line of bulk and packaged natural foods (including cheeses) for treeplanting groups, food co-ops and others throughout western Canada.

Ask for our current price list



As of April 1st, the government has also cut the administration allowance granted Forest Companies to supervise reforestation work. Says Mauch, "the companies are getting paid less and less and they are going to have increasing trouble with inexperienced, low-bid contractors. A company like Weyerhaeuser will likely respond by cutting back on its supervision costs. More of the burden will fall on the reforestation contractor and in the end it will be the quality of the plantation that will suffer."

## MINISTRY REQUIRES CORPORATE SEALS

Although contract tenders now officially request corporate seals, MOF is not yet enforcing the rule to give the contractors training time to adapt their seals to the new requirements.



## SILVICULTURAL HIGHLIGHTS

- a record 105 million seedlings were planted in the province last year, of which 97.7 million were planted on Crown land and 7.6 million on private land.
- the Federal-Provincial Agreement was finally signed on May 25, 1985.
- Ministry of Forests Silviculture Branch's budget climbed to \$57.2 million from \$49.3 million last year.
- a further increase in seedling plantings will be coming this year although many groups, including the W.S.C.A and Association of B.C. Professional Foresters, argue that far too little is being reforested.
- seedling survival ranges from 40-95 per cent, depending on species, site, environmental factors, and particularly stock type and seedling condition at time of planting.
- the overall provincial average is about 68 per cent, meaning close to 79 million seedlings planted last year will actually survive.
- statistics on numbers of seedlings actually planted per year from numbers grown in nurseries, may differ by as much as 35 per cent.

Mauch describes the whole environment that surrounds the treeplanting business as one of distrust. The Company foresters are suspicious of the treeplanting crews and contractors, and the government foresters are always looking over the shoulders of the Company people. In the final analysis it is the Forest Service which calls the shots, and the pressure is on them to reduce cost and increase the number of trees planted.

Mauch feels the government is overly concerned with what she calls the "numbers game". It looks good to people reading the paper in Vancouver to see that 120 million trees are being planted. This is reassuring, the problem is being taken care of. In fact, only 65% of the trees planted in B.C. are surviving. And in some parts of the province this average is much lower.

Says Mauch "you would think that after all these years of planting we have done we would know more about what it takes to regenerate an area. In the Kamloops Region we were planting Fir plugs from one nursery. I started noticing that all these plugs were dying. But no one was aware that this was happening with these same trees all over the region."

With planting responsibilities divided between the Forest Service and the logging companies no one ends up looking at the larger picture.

Says Mauch, "the attitude is once it's done it's done and that's the last you see of it. The planting information gets buried in some filing cabinet."

When the Ministry of Forests audits the planting programs of their regional offices they only look at costs and numbers. Says Mauch, "they only care about how many trees are planted, no one asks about survival or quality and there is a real pressure to respond in that vein."

It is not only the government that is playing the numbers game. Treeplanting is carried out on a piecework basis. Planters get paid only for the trees they plant. With bid prices falling, silviculture contractors have responded by lowering the price per tree that is paid to their workers.

The results are predictable. Treeplanters are forced to plant more trees to earn the same amount of money. Although planting quality is strictly supervised by

company "checkers", there are always shortcuts available to a penny pinched treeplanter. One can plant "with a big mittful", that is with a handful of seedlings exposed to the sun, or one can conveniently forget to dampen the roots and of course, one can simply "slash" trees under a log or rotted stump. None of these techniques are yet widespread. But treeplanters can be expected to respond to lower wages by cutting corners where ever they can.

Philip Ditchburn, head of the Pacific Reforestation Worker's Association, a fledgling treeplanters organization, is committed to improving wages and working conditions in the reforestation industry. Ditchburn notes that it is not only treeplanting wages that are falling. Camp costs are rising to cover more of the contractor's overhead expenses. And in some camps treeplanters are expected to provide for their own transport and do their own cooking.

Ditchburn says that both planters and contractors have failed to establish a bottom line in the industry. Last year the PRWA attempted to unionize treeplanters, in association with the International Woodworkers of America (IWA) and establish minimum standards for wages and working conditions.

The unionization drive failed. Most treeplanters are as distrustful of big unions as they are of big government and big business. And it is difficult to build a strong commitment to the industry when many treeplanters see their job as temporary, something they will no longer be doing by next season.

In times of high unemployment it is all too easy for low bid contractors to find the workers they need even though they are offering low wages and poor conditions. Ditchburn feels "that people should be provided with certain minimum conditions, a cook tent and a dry tent for starters, and hot showers to clean up after work. We do not buy the logic of the marketplace. Forget the marketplace. People should earn a decent wage and live in decent conditions."

The treeplanting business is infamous for its lack of Employment Standards. The long ride back to camp at the end of the day is often spent in the back of a pick-up truck. And it is not unusual for a planter to work a

whole season and not be paid until months later.

Ditchburn notes "that most treeplanters have never heard about the Employment Standards Act. There are certain standards that people have fought for. Treeplanters do not know what these rights are, they are desperate for a job, so they end up in a poor camp not knowing that things should be different."

The downward spiral in treeplanting wages and working conditions is the result of cut-throat competition among silviculture contractors. It is relatively easy to become a treeplanting contractor. Compared to most businesses start-up costs are low. Any treeplanter can enter the contracting business by simply getting out and undercutting established contractors. This perpetuates the vicious cycle as the established contractors are in turn forced to lower their bids, pay lower wages and provide poorer conditions.

Ditchburn further says "the contractor will say that they had to bid low because the other fellow down the valley is forcing prices down, and stealing our trees. Everyone is just looking around and blaming the other guy, not realizing that they are part of the problem."

In 1980, the B.C. government made a series of amendments to the Employment Standards Act. The changes were aimed explicitly at farm labour contractors but applied to all businesses that employed labour as their chief input. The amendments were designed to compel labour contractors to become bonded and adhere to certain employment standards such as regular pay periods, holiday pay, and other such "benefits".

Wording into the 1980 amendment to the B.C. Employment Standards Act was a clause that excluded silvicultural contractors. Both the Forest Service and the Western Silvicultural Contractors' Association (WSCA) supported this exclusion, fearing their costs would rise.

This short-term assessment has been significant. By requiring silviculture contractors to become bonded, the Employment Standards Act changes would have increased the costs of entry into the contracting business and helped to establish a floor on bid prices. Moreover, treeplanters



might now have the same basic protections as the farm workers of the Fraser Valley.

It is hard to be optimistic about the future of the treeplanting industry in B.C. One need only look as far as Oregon to see the handwriting on the wall. In the seventies, most of the treeplanting work in Oregon was done by "alternative" style planting crews. The most famous of these groups was the Hoedads, a treeplanting cooperative based in Eugene, employing over 600 people in 1979. Today, the Hoedads have only 40 members, unable to compete with low-bid contractors hiring immigrant planters who have lower wage expectations than local workers.

The evolution of the Oregon treeplanting industry helps to illustrate the present day changes in B.C.. Aside from the drop in wages and working conditions, the whole character of the industry is changing.

Treeplanting has always been the kind of work where alternative values have flourished. Camps are run on a cooperative basis. And unlike most other bush jobs, women comprise about 40 per cent of the treeplanting workforce. The sharp distinction between employees and employers is often obscure when the contractor is a fellow planter from previous seasons. In many ways the planting crew functions as a family with tasks and responsibilities shared amongst planters, forepersons and contractors.

Slowly, this is all changing. Decision-making by consensus is more time consuming, less efficient than instructions from the "boss". The work days are longer, the camps not quite as relaxing. Like the Hoedads in Oregon, contractors in B.C. are faced with a choice—either tighten up and survive, or go under, losing values and all.

D'Arcy Davis-Case recently completed a Master's thesis analyzing the reforestation industry in B.C. She sees the reforestation industry as a unique example of a co-operative, egalitarian work environment. This, she says, is being eroded by the force of competitive economics. "A good treeplanting company can no longer exist in a bubble; the context within which they are forced to operate is ultimately destroying the unique character of the industry."

Davis-Case says that it is easy to see this process as somehow inevitable. Because we tend to assume that people are inherently

self-interested we see the kind of alternative values that treeplanting work embodies as being necessarily precarious and unsustainable. Davis-Case notes that "this is a self-fulfilling prophesy. Right now we think of everyone as self-interested and our entire system is built up to support this assumption, competitive bidding, piecework wages and so on."

Davis-Case argues that we could just as easily look at the flip-side of the coin "if we use a different set of assumptions about people, that they are basically cooperative, and then enact policies to support this view, we will begin to see a different picture."

What kind of policies would we need to encourage co-operative values in the treeplanting business?

Again an example is provided by events in Oregon. In 1980 the U.S. Bureau of Land Management (BLM) launched a pilot stewardship program in which the treeplanting company was responsible for the survival of the new forest plantation over a five year period. Payment was also spread over the same five year span and dependent upon seedling survival. The idea was to encourage a more long-term commitment amongst treeplanters to the health of the new plantations.

The rewards of this system go both ways. The BLM is assured that everything possible will be done to foster the growth of the seedlings. In the stewardship program the workers have gone to elaborate lengths to ensure the survival of the plantations under their care. They have thinned out competing brush and even watered the seedlings during a prolonged drought. One of the more imaginative solutions that stewardship workers devised was an owl perch which they erected on sites which were being threatened by mice nibbling at the root collars of the newly planted seedlings. This solution worked, the owls ate the mice.

For the stewardship workers, stable employment is provided for a five year period. They have a stake in the area and guaranteed work, plus the satisfaction that comes from seeing a job through to completion and a plantation flourish.

The pilot stewardship program has been successful and the BLM has allocated more funds for similar programs.

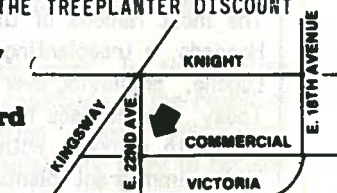
In B.C., the Ministry of Forests shows no signs of moving in a similar direction. Here forest management means restocking an area as cheaply as possible and then replanting it again if the trees do not survive. But true forest management is above all an attitude. It is a long-term commitment to the productive integrity of our forest land. ●

## GREAT BUYS ON FOOD

THE ORIGINAL NATURAL FOOD STORE...

- Herbs & Spices
  - Assorted Teas
  - Baking Supplies
  - Nuts & Grains
- \$\$\$ ASK FOR THE TREEPLANTER DISCOUNT

High quality  
at a price  
you can afford



3839 Commercial Hours: 9 - 5 Mon. - Sat.

**FAMOUS FOODS**  
872-3019

# Planting Bags by Coast Mountain

Three rugged years of use have established our tree planting bags as one of the finest designs available to the silvicultural industry. From the comfortable suspension developed from our mountaineering packs to the unique removeable bag design, CMS bags are built for function. Available in a three-bag model for smaller waists or a four-bag model complete with dibble bag and a fully adjustable suspension.

All Coast Mountain bags are covered by a 2 year warranty on stitching and manufacturing defects.



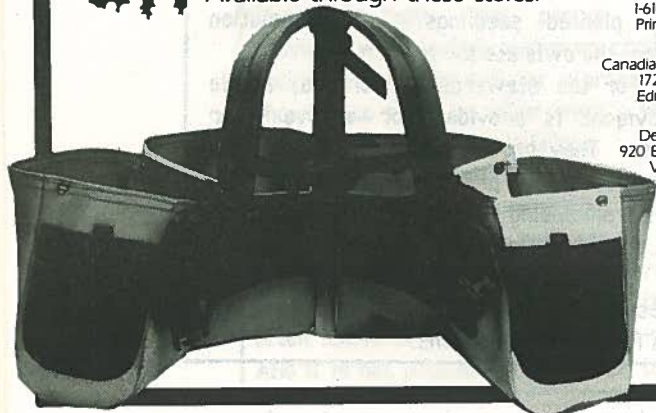
**Coast Mountain Designs**

Available through these stores:

Industrial Reproductions  
1-610 Richards Road,  
Prince George, BC  
V2C 4L3

Canadian Forestry Equipment  
17212 106 Avenue,  
Edmonton, Alberta  
T5S 1H9

Deakin Equipment  
920 East Cordova Street,  
Vancouver, B.C.  
V6A 1M6









# Reforestation equals job creation

by: Paul MacDonald

Tragic.

That's the most apt term to describe the silviculture situation in B.C. — a situation that saw just one municipality on Vancouver Island do more spacing and fertilizing in 1984 than the entire B.C. Forest Service.

The financial situation of the B.C. government is explained in statements from Victoria. There is no money, the politicians say, for intensive silviculture.

That has changed somewhat as the forest service will carry out some intensive silviculture during 1985. But it will surely fall short of what needs to be done.

Federal government money is being used to help the district of North Cowichan get its municipal forest back in order through job creation programs. And other Vancouver Island politicians

— impressed with the progress North Cowichan has made — are trying to free up some money from the provincial government for a reforestation program for other areas of the Island.

A reforestation scheme, adopted by a delegation of Vancouver Island mayors last November — a group led by North Cowichan mayor Graham Bruce — would cost \$22.3 million a year and create an estimated 1,116 jobs. The plan would lead to a \$655 million increase in the value of timber on the Island when it is ready to be harvested in 45 years.

The group met with forests minister Tom Waterland in late-January. Waterland said then he supports the forest investment program, but the issue of funding it is still up in the air.

Waterland did appoint Bob Jordan, manager of the silviculture branch, to sit on a proposed federal-provincial ad-

visory committee. Federal forests minister Gerald Merrithew has also agreed to participate in the advisory committee.

The dividends from such a program would start coming in almost immediately, as they have in North Cowichan.

The area has been hurt badly over the last several years. First, there was the general downturn in the forest industry. But what really shook the community was the closure of MacMillan Bloedel's Chemainus sawmill. While MB has since rebuilt and opened a new mill at Chemainus, it employs a fraction of the more than 600 workers required for the old mill. The unemployment rate for the district is 20 per cent, a full five percentage points higher than the provincial average.

The reforestation program launched in the North Cowichan municipal forest has been a major weapon in job creation. Over the last two years, 1,200 people have been involved in employment programs in the forest.

"It's helped to keep a social structure in the communities," says Dave Haley, municipal forester for the district. "The federal government is looking at it as a measure to keep people gainfully employed in meaningful work — work that will return something back to the community."

Haley points out that an increased supply of timber might help to reduce some of the problems B.C. is experiencing now. A larger supply of timber could reduce the number of conflicts over land use — such as Meares Island — because more options would be available to the government.

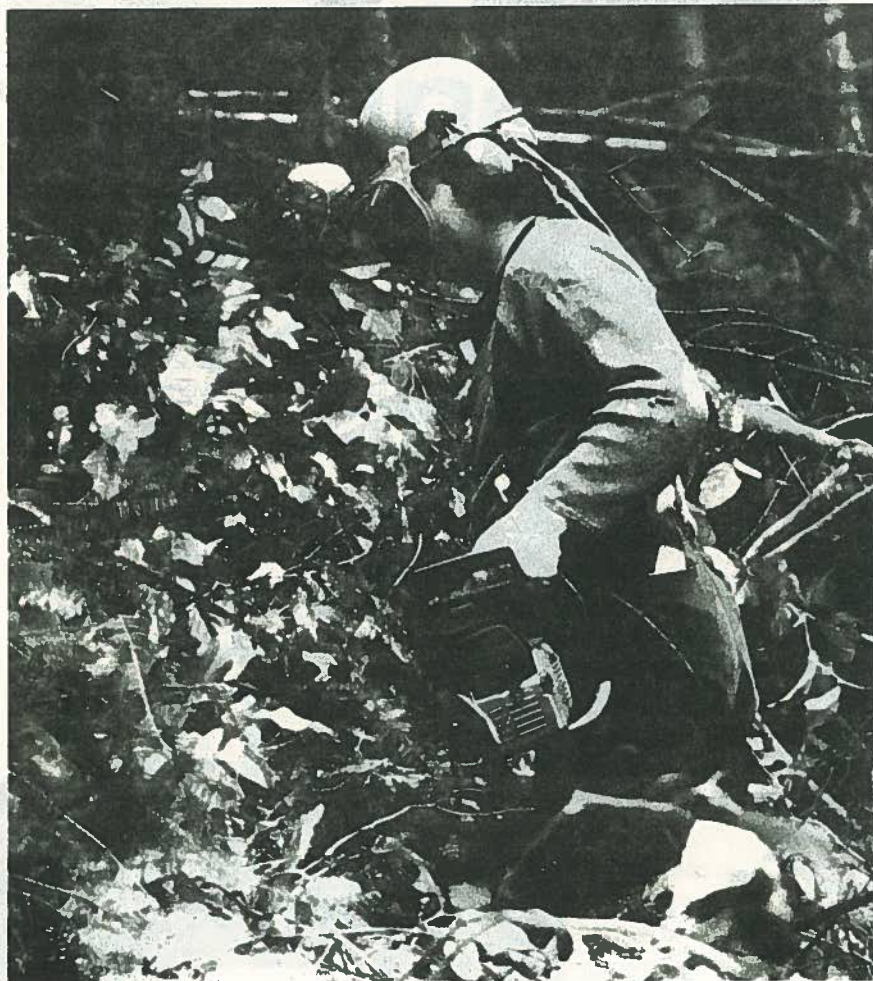
The district of North Cowichan — at 210 square kilometres, the province's third largest municipality — is in a unique position. It is the only municipality in the province that owns a forest. All of the almost 5,000 hectares belong to the municipality. None of it is crown land.

At one point, this land was part of the Esquimalt & Nanaimo Railway land grant, but it was sold off to individuals over the years.

Most of the forest came into the hands of the municipality when taxes went unpaid through the 1930s depression.

In 1946, district council put the land in a forest reserve for management purposes, a move that, for its time, "showed a lot of foresight", says Haley.

By 1964, council had put logging on a woodlot plan. The land was divided, individuals bid on the areas, with the highest bidder getting the right to log



AS PART of tending in the North Cowichan municipal forest, some roadside brushing has been done as a fire protection measure. Vancouver Island politicians are trying to free up money to carry out reforestation programs on other parts of the Island.



## Reforestation

*continued from previous page*

and then pay stumpage to the municipality. Tenure was for five years.

Previously, the timber was sold off on a random basis.

Reforestation, beyond what occurred naturally, was non-existent. "Up to 1982, there was some fire protection and road development but virtually nothing else was done," added Haley.

Logging had been conducted under a diameter limit cut — all trees with diameters of 355 millimetres and up were cut. The assumption was that the smaller trees left behind would make a good second crop.

There was a change in philosophy in 1982, however. The district hired its first full-time municipal forester — Haley — to manage the forest. And it has turned from diameter cutting to clear cutting.

The forest wasn't in the finest of condition when Haley came onto the scene.

"It wasn't in really good shape, but there's a lot of potential there. Where it came back naturally, there's some very good second-growth.

"There are also a lot of problems with brush, and alder encroachment to the point that the forest advisory committee could see that, over time, the forest was headed down."

The forestry advisory committee is made up of members of the community

with extensive experience in forest land management. The committee made its recommendations to council in May, 1981.

Management of the forest was at a very low level. Over time, revenues to the municipality would have decreased because the volume of quality wood would not be there any more. There would be smaller trees, they would be of less desirable species and the forest would be going heavier to alder and maple.

"Even as it is now, 25 per cent of our volume is alder or maple in one form or another. Project that down the road and what you end up with is a forest of alder and maple and other uneconomical trees to log."

At present, stand composition is 75 per cent conifer — 55 per cent fir, 10 per cent hemlock, seven per cent cedar and three per cent miscellaneous — and 25 per cent deciduous — alder and maple.

The district has made a good deal of progress under the employment programs over the last two years.

When a start was made, an estimated 2,000 of the 5,000 hectares required spacing. So far, 1,500 hectares have been spaced. Spacing reduced the number of trees per hectare from 3,000 to 20,000 down to 600 per hectare.

This concentrates available growth on selected crop trees and lowers the length of time until the trees are of harvestable size.

Of the 1,500 hectares spaced, about 580 hectares have been pruned. Using

hand saws and extendable pole saws, the lower limbs are removed to a height of three metres or 50 per cent of the crown height.

And a total of 80,000 seedlings have been planted over the last two years.

This will all mean substantial gains in growth.

The mean annual growth for the municipal forest is five cubic metres per hectare, per year. Basic forestry alone is expected to add 3.9 cubic metres per hectare, per year.

And studies done at nearby Shawnigan Lake by the Canadian Forestry Service show the effects intensive silviculture can have.

Untreated stems showed average diameter growth over six years of 9.1 centimetres. When juvenile spacing was done, the growth was 14.1 centimetres. When fertilization was carried out, the growth was 11.1 centimetres.

But when both juvenile spacing and fertilization were done, the growth increased more than 80 per cent to 16.7 centimetres.

Of the spaced areas in the municipal forest, only 100 hectares have been fertilized, all of this manually. "That will be our next priority," says Haley, "to fertilize as much as we can and boost that growth up even more."

In addition, roadside brushing has been carried out as a fire protection measure, trails have cut for fire-fighting access and some slash burning and scarifying has been done.

As a result of all this work, the forest yield will increase by 73 per cent — an extra 370,000 cubic metres.

Timber value will more than double to an estimated \$40.6 million from the \$18.6 million value the timber would have had if no silviculture had been practiced.

The revenue the district now receives from logging — 16,000 cubic metres was cut in 1984 — is earmarked for forest management. The plan is that sometime in the future, revenues will exceed what it costs to manage the forest and the excess will be used to fund other municipal activities.

Dave Haley, like all other professional foresters in B.C., would like to see more spent on reforestation in B.C.

"We're reaching the stage where we have to invest money — and it's an investment, not a cost — and the returns will be there."

The short term returns are there in jobs for the unemployed and the resulting economic spinoffs to communities dependent on the forest industry. The long term benefits are there in terms of better timber and more of it.

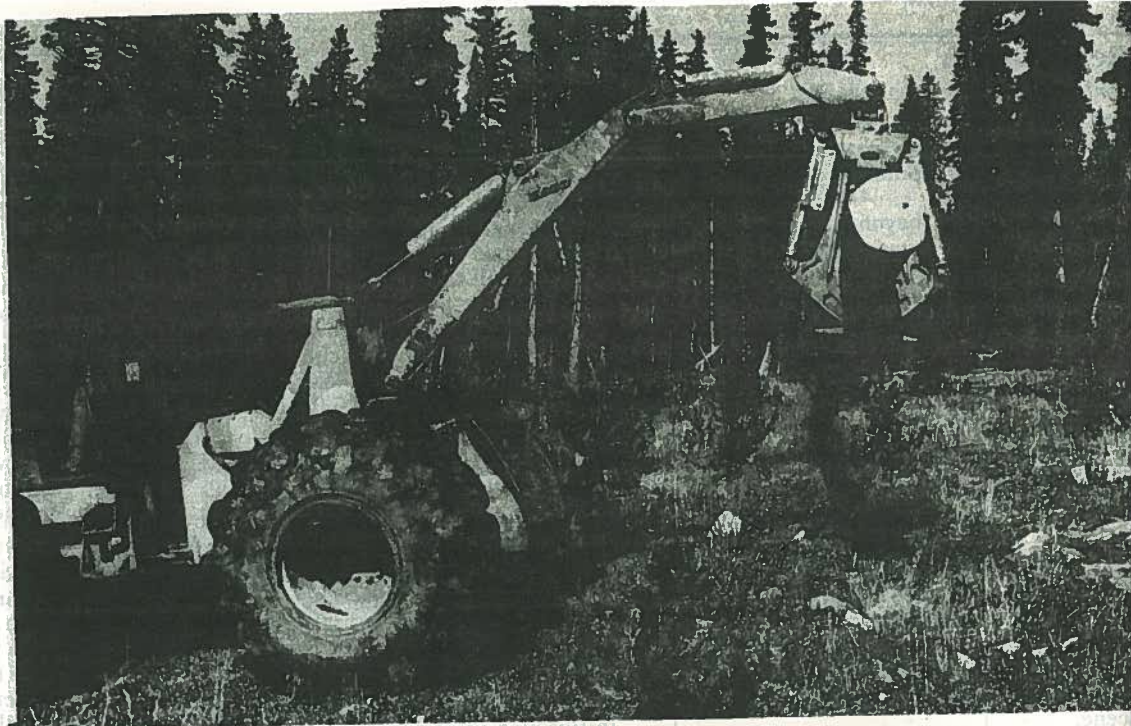
"The forests have been very good to us over the last 100 years," says Haley. "I think it's time we were turning it around and being good to the forests." ●

## B.C.'s REFORESTATION PROBLEM?

This is a story about four agencies named Everybody, Somebody, Anybody and Nobody. There was an important reforestation problem that had to be solved — Bennottland was running out of trees. Everybody was sure that Somebody would do it. Anybody could have done it, but Nobody did it. Somebody got angry because it was Everybody's job. Everybody thought that Anybody could do it, but Nobody realized that Everybody wouldn't do it. It ended up that Everybody blamed Somebody, when actually Nobody accused Anybody!!!!



Skidder operators are careful to avoid damaging natural regeneration when placing logs.



A surprising sight indeed, seeing heavy logging machinery crawling about in a forest clearing, where all the trees had long since been logged. There wasn't a timber harvest for miles, yet these harvesting machines were hard at work in this section of the San Juan National Forest in southwestern Colorado. Ironically, the logging equipment was not being used to harvest a stand but to begin a new one.

The heavy machines, called skidders, are helping out in one stage of reforestation—site preparation. They prepare the site for later plant-

*Beth Lamberson Warren is a seasonal forest technician on the San Juan National Forest. She has first-hand knowledge of the reforestation approach she describes in this article.*

ings of Engelmann spruce by arranging slash to provide optimum shade for the seedlings. Natural regeneration of Engelmann spruce usually occurs in small open areas where the little trees benefit from the protective shade of surrounding trees. A 40-acre clearcut, however, requires special preparation to produce conditions that mimic the natural as closely as possible. At high elevations (the San Juan units are as high as 10,000 feet), the sunlight is intense and may kill a tree's chlorophyll cells. Shade blocks some of the sun's rays until the tree is large enough to shade itself.

Using natural obstructions (rocks, bushes, etc.) to shade seedlings is one approach, but they seldom provide enough shaded area for planting the entire site. Artificial shade devices

such as shingles and waxed cardboard barriers can be used, but they don't hold up to weather conditions on the San Juan units.

Clearcuts on the San Juan's Dolores District, however, were laden with windrows of slash from a previous timber harvest. Forest Service personnel believed that by moving the slash into a properly oriented layout, they could supply excellent shade. The concept became workable using logging machinery.

Skidder operators make use of on-site material and, when necessary, supplement that with dead and downfall trees from the perimeter of the clearcut. A sawyer also works on the project, felling dead trees, cutting off root crowns the skidders have pushed over, and making any needed cuts on the logs after they

To meet shadeblock specifications for the unit, a certain number of logs must be arranged to protect seedlings.





# NEW APPROACH TO REFORESTATION

An unusual idea permits the planting of shade-needing seedlings in a sun-baked clearcut.

Text and photos by Beth Lamberson Warren

have been placed in position. Logs have to be at least seven inches in diameter to provide effective shade, and they must be positioned so as to protect the seedlings from southern and western sun exposure.

In working on units to be planted with Engelmann spruce, the skidder operators have to watch the distance between logs. If they are placed too close together, they will interfere with the recommended spacing of the trees (six feet apart) when planted. On the other hand, a certain amount of lineal feet of shade-block per unit is mandated in contract specifications, so by spacing the logs too far apart, the operators would risk having material left over. So a good eye by the skidder operator is a must.

Problems with the project were

few and presented no major obstacles. Slash on the clearcuts was not always usable; in several instances, the skidders made a grab with the grapple arm, only to break through a pile of crumbled and rotting logs. The heavy machinery posed a threat to small existing trees on the units, but by using the same route to move on and off the units and being as cautious as possible, damage was kept to a minimum. The topography of the unit sometimes limited the skidders, resulting in fewer logs being placed on some slopes. To meet shadeblock specifications for the unit, the flat areas then had to compensate with a heavier application of logs, spaced no more than six feet apart.

In all, six clearcuts encompassing almost 200 acres have been prepared

this way and will be planted within the next two years. The Forest Service has found the results favorable, as the number of planting areas created has far exceeded all original estimates. This type of site preparation for regeneration of Engelmann spruce could be used again on similar units in the district and elsewhere. Using slash to create shade had been tried on other areas of the San Juan National Forest, but on a smaller scale, with draft horses and manual labor. This project has shown that it works as a large-scale, mechanized site-prep endeavor.

Not such an unusual sight, after all. Using logging equipment to reforest an area makes sense—rather than working only to complete the forest cycle, the machines are helping to continue it. ■



Logs are placed so as to shade seedlings from southern and western sun exposure.

## **A STRATEGY FOR ECONOMIC SURVIVAL**

**by Sandra Leitch**

A group of Vancouver Island mayors has initiated an intensive forestry management program designed to create 1,116 jobs annually on the island and increase the value of timber to \$655 million in 45 years.

North Cowichan Mayor Graham Bruce, who leads the group, said the proposal was accepted as a business investment program on January 23, 1985, by Minister of Forests Tom Waterland. The Minister also agreed to appoint a member of his ministry, Mr. Bob Jones, Manager of Silviculture Branch, to an advisory committee for the program and organized a presentation on February 12, 1985, before the cabinet committee of economic development, Bruce says.

The advisory committee will include, in addition to Mr. Jones, a representative from the Ministry of Labour, two federal government members, two mayors and one representative from industry, which is a major land holder on Vancouver Island.

Federal Forestry Minister Gerald Merrithew has already agreed to appoint two federal representatives: one from the Ministry of Forests and another from Employment and Immigration.

Bruce says the program is more than just a forests renewal plan. "It's a strategy for economic survival...It's a program that (will) help turn around the economy of Vancouver Island."

The program follows the successful intensive forest management program initiated three years ago in North Cowichan, which as a municipality took advantage of EBAP and Canada Works programs to embark upon a five-year program which has already accomplished 17 years worth of progress, says Bruce.

Rather than spending money on items such as new fire trucks, Bruce figured a better investment for the municipality was putting money back into the forest to bring it into a healthy state.

The mayors of Vancouver Island were gathered together in a survival strategy

seminar on November 29, 1984, and a plan was adopted that would cost \$22.3 million for an annual return of \$79.5 million.

Bruce sees the plan as one that could spread to the rest of the province and throughout Canada. Society as a whole doesn't recognize forestry as the main pillar of Canada's economy, he says. But when one looks at the figures compiled by federal and provincial governments, "it's staggering." The combined earnings of fishing, mining and agriculture don't come close to the earnings of forestry, which is a major employer not only in B.C., but in Ontario, the Maritimes and in Quebec, he adds.

The majority of the lands in Canada are a crown responsibility. Our responsibility as citizens is to ensure that money goes back into the crops, says Bruce. He feels that Vancouver Island is an ideal place to start such a program because it's one of the best areas in Canada and the world to grow trees.

"What we have achieved so far is the basis of a grassroots movement of non-partisan mayors saying this resource is valuable to Vancouver Island. We cannot let this go."

This article was taken from "The Truck Logger", February/March, 1985.

Graham Bruce made a dynamic, highly charged presentation to the WSCA general meeting outlining his Island Mayor's proposal for \$22 million to be injected into silviculture on Vancouver Island.

The WSCA expressed concern that this would be another diversion of funds into make-work in silviculture. It was explained that one of the main functions that the WSCA has played over the years has been to keep vigilant watch over Ottawa to prevent the politicians from taking our livelihood away with their make-work schemes. Graham Bruce assured the membership that the Mayor's proposal was to create work for the existing silviculture industry and not to replace our jobs. At this juncture, the WSCA membership declared their full and enthusiastic support of this civic effort to regenerate the forest.



## EVALUATION OF MOF, 1983 REFORESTATION PROGRAM

The basis of this evaluation is the consensus among foresters that the minimum acceptable level of survival for artificially reforesting any management area is 80%.

### 1983 Plantation Mortality Vs. Acceptable Mortality.

The Ministry of Forests annual report shows 108,373,000 trees planted.

In Dec. 1984 the Chief forester reported in the forest and range resource analysis that mortality in 1983 was 35%.

It is commonly accepted by forest managers that mortality should be less than 20%. Management practices of the Ministry of Forests results in an avoidable loss of at least 15% of all the trees planted in 1983 — i.e. 16,255,950 seedlings were wasted.

The value of the return MOF can expect for investing in good management can be arrived at by tallying the cost of avoidable failure.

### The Cost Of Avoidable Mortality.

The cost to survey, administer, grow and plant these seedlings is greater than 50 cents per tree (Annual Report. Ministry of Forests, 1983-4).

Therefore the direct cost of the avoidable planting loss was \$8,127,979.

### Additional Fill Planting Cost

The cost of fill planting plantations where there has been partial stocking is usually over 30% greater than the original cost of planting. Replanting would require an additional expenditure of \$2,438,394 above the original cost of \$8,127,979.

### Fibre Production Lost

The average planting density in 1983 was about 1000 trees per hectare; 16,255,950 seedlings wasted represents a stocking delay for 16,255 hectares.

Due to the time required to assess mortality and then seed, grow and replant, four productive years of fibre growth will have been lost. The average fibre yield of untended

stocked land in B.C. is approximately 4 cubic metres per hectare per year. The on the stump log value is approximately \$50 per cu. metre. The value of fibre production lost from the 1983 plantation is:

$$[4 \text{ cu metres}] \times [16,255 \text{ hectares}] \times [4 \text{ years}] \times [\$50] = \$13,004,000.$$

### Total Avoidable Loss

Total avoidable loss from 1983's reforestation effort was \$23,570,373.

Reciprocally, the budget for reducing the level of mortality from 35% in 1983 to 20% could be \$23,570,373 with no increased cost to the public. Think of what we could have done with that!

These publically available figures were assembled and brought to my attention by an MOF administrator who was advised to shut up.

## SPACED TREES GET THE BLUES

Summary of Jim Stirling's article in January 1985 issue of the Lumberman.

Juvenile spacing is not simply a matter of reducing stand density. What densities are appropriate, by what method they can be most cost effectively achieved and the biological responses to the disturbance are some of the ingredients for maximizing value that make the long term project decisions intriguing.

Juvenile spacing provides an object lesson in the dynamics of action and reaction. Lodgepole pine tends to grow densely and 100,000 stems per hectare is not uncommon. Immediately after juvenile spacing dense stands, by whatever method or at whatever cost, there's a period of growth decline — the re-adjustment blues alluded to earlier.

Les Herring, regional silviculture research officer for the Ministry in Prince George, explained the trees are used to the density of the stand and the resultant competition. But they have difficulty coping when the canopy is first opened up and unaccustomed amounts of sunlight flood in. It takes them time to develop needles with the appropriate photosynthetic ability.

It is some of those biological responses that can traumatize a tree into the re-adjustment blues phase after juvenile spacing.

# W.S.C.A SILVICULTURAL ISSUES

## TREE PLANTING CONTRACTS

Don Whitely\*

The Provincial government's drive for economy has zeroed in on one of the industries that can least afford it, and where the costs of making mistakes are potentially the highest.

For several months now, the Treasury Board has been pressuring the Ministry of Forests to open up tree planting contracts to unrestricted competitive bidding. Last week, the pressure succeeded when the ministry formalized some new rules for the awarding of tree planting contracts.

This is a bit complicated so it needs some explanation. There are essentially two types of tree planting projects in the Province. There are projects administered and funded entirely by the ministry. Those are, and have been, open to unrestricted competitive bidding for several years now. The other types of contracts are Section 88 jobs. These are projects where a forest company, like MacMillan Bloedel, plants trees on recently logged land. It awards the contract to the reforestation company, which is then approved by the forest ministry, and the work is done. The forest company then subtracts the cost of the reforestation from the royalties it pays for the timber harvested. In both of these contracts, the taxpayer ultimately foots the bill, so it is understandable why the government wants the best value for its dollar spent. It is also understandable why open competitive bidding would be seen as a way to do that, because it works well in nearly every other type of government contract.

A strong argument can be made that the wide open, competitive bidding on the Ministry projects over the last few years has done a good job keeping the costs down in all of them.

But it isn't that simple. The tree planters maintain that a continual downward pressure on planting costs, which are already at rock bottom, will simply lower standards. The result will be a drop in the survival rate of the trees planted, and ultimately produce a more

expensive tree. They have statistics. The average survival rate for trees planted is 70 per cent, and of those that survive, only half are considered healthy, thriving trees. Simple arithmetic shows that if it costs 83 cents to plant the trees, 70 per cent survive, and only 35 per cent reach harvestable quality, then the actual cost per tree is more like \$2.50.

Now, if an economic crunch reduces that survival rate, the cost per tree initially might drop from 83 cents to 78 cents, but the cost per viable healthy tree 40 years from now will climb to \$3, and there will be a lot fewer of them. Rather than reducing the initial cost of the tree planted, the planters argue that standards should be raised. An increase of the basic tree cost to 90 cents, they claim, could result in a lot more healthy trees and an ultimate tree cost of \$1.50.

\*Don Whitely is Business Reporter with the Vancouver Sun newspaper. This report aired at 12:50 p.m., May 8, 1985, on CBC's Almanac program.

## PRESS/ BROADCASTING

### China's New Television

#### *The Globe and Mail*

By Allen Abel, excerpted from the independent "Globe and Mail" of Toronto.

**A** week of Chinese television begins with a film clip of Deng Xiaoping planting trees. It is a show called *People's Army*, a twenty-minute exposition of the qualities that make a modern Red fighter. The Little Helmsman appears briefly, and the announcer sings of the duty of each citizen to protect the environment by helping to build a Great Green Wall.

## ATTENTION GOOD USED CAMP TRAILERS

- 20-man bunkhouses c/w wash and dry
- kitchens/diners
- Offices, etc.

**SAVE!! BUY USED.**

# DM INDUSTRIAL TRAILER SALES LTD.

CALL DOUG MUCHE (604) 588-3529 RES. (604) 856-9430  
8363 128th St., Surrey, B.C. V3W 4G1



**SECT. 88: CONTRACT BIDDING  
REPORT ON THE FINAL MEETING BETWEEN  
MINISTRY OF FORESTS AND LICENSEES  
RE SECTION 88 COMPETITIVE BIDDING**

**DATE:** June 4, 1985

**PRESENT:** Roy Cullen (MOF Finance Dept.)  
Hans Waelti (MOF Valuation)  
Gerry Kennah (MOF Silviculture)  
Various Licensees  
Tony Greenfield (WSCA Director)

A handout distributed at the meeting indicated that existing procedures concerning competitive bidding are subject to minor revision pending further discussion, however, conceptual changes are not expected.

Roy Cullen's opening remarks stated that the changes were designed to realize the "Full potential of competitive bidding". He further indicated that the greatest gains would probably be in the engineering section as most silvicultural work was already subject to competitive bids.

Ministry of Forests' policy now is that ALL contracts will go to public tender, with newspaper ads in the Sun and Province. Preferred bidder lists are NOT permitted - the lowest bidder will be awarded the contract, except, that MOF will listen to licensees justifications for rejecting the lower bids. Lip service was paid to the fact that the industry requires an experienced group of contractors (planters to do the available work). The downward trend in bid prices as a result of even fiercer bidding competition is seen by the MOF as a one-dimensional solution to their problem of getting "more bang for our buck".

Maintaining quality control in this situation is seen purely as an administrative problem. There is TOTAL insensitivity and blindness to questions such as declining wages and declining camp and working conditions. The ONLY dimension for the Ministry is unbridled competition with more trees planted for less money, and leave it to contractors to determine exactly how little people are prepared to work for.

The licensees were concerned about having to call for tenders on silvicultural surveys. In many cases this means laying off permanent staff and bringing in a contractor.

MOF's response was that licensees would be reimbursed up to the level of a competitive bid and this could be "worked out".

Licensees were also concerned about how open bidding would be conducted on remote, coastal inlet, fly-in type jobs. Cullen's response was: - let the interested contractors find their own way in and include the expense in their bid price. He was taken aback at the idea that each contractor did not maintain a viewing vehicle at the head of Seymour Inlet. Gerry Kennah then questioned the whole idea of the necessity of viewing contracts - a position he has voiced before. My response to Mr. Kennah is "If you are prepared to buy a \$60,000 house sight unseen, then I'm prepared to buy an \$80,000 contract at Seymour Inlet sight unseen".

The whole question of viewing remote jobs was left unresolved, but W.S.C.A may have to address a trend to blind bidding.

I left this meeting somewhat confused. The guidelines are clearly written down, but the full implications both for coastal and interior bidding are unclear until it is given a test.

Tony Greenfield  
Director

## BOAT CHARTER

**38 ft. Troller Design Displacement Charter  
Vessel - For Coastwise Timber Cruising,  
Surveys Etc. Accommodation for Four  
- Hold Space and Towing Capability  
Owner - Operator**

**M.V.  
"BONNIE BELLE"**

**For  
Charter**

Phone (604) 287-7775  
or  
(604) 285-3578



**A. J. PARKYN**

Box 331, Campbell River, B.C., V9W 5B6

# MCPHERSON/ROBBINS

## LETTER

A letter was sent on May 3, 1985, to the Honorable Al McPherson, Deputy Minister of Forests, and the Honorable Ralph Robbins, Chief Forester for the province of B.C., outlining the WSCA's position concerning Section 88 changes.

Dear Al McPherson and Ralph Robbins,

Proposed constraints for Section 88 funding arose from provincial economics. This letter restates the WSCA view of the economics of silviculture. This view assumes that the objective of the province's silviculture program is to stock the maximum hectares with the optimum number and species of healthy, vigorous, free growing crop trees. (Past policies and these latest proposed changes certainly require us to state this W.S.C.A. assumption explicitly.)

Presently,

a) planting sites have been planted at 120% of the target stocking—eg. when the target stocking is 1000 trees per hectare then 1200 trees would be planted.

b) only 80% of the time enough trees survived to adequately stock the site.

c) of these surviving trees many are not vigorous and healthy. Some field foresters are reporting that as few as 50% of the 1.3 billion plus seedlings that have been planted to date are vigorous and healthy enough to grow to a harvestable crop tree.<sup>1</sup>

d) the cost per planted tree for seed collection, nursery growing, transportation, regen surveys, survival studies, administration, planting, and brushing—up to free growing age is currently estimated to be \$.83.

Under the present system in order to stock the average completely unstocked provincial hectare with 1000 healthy, vigorous, free growing crop trees we get:

$$[a \times (1200)] \times [b \times (100/80)] \times [c \times (100/50)] \times [d \times (.83)] = \$2490.00$$

ie. \$2.49 per healthy free growing crop tree.<sup>2</sup> Increasing the pressure on the companies to go to competitive open lowest bid may appear to save the province about \$.02 per seedling,

10% of the current planting costs. The cost of planting is about \$.20 per seedling, ie. about 25% of the total cost per seedling. The Ministry may save 2.5% of the total cost per seedling. Saving 2.5% of the cost per seedling this way will cost the province up to 25% per free growing crop tree as a result of decreased planting and stock handling quality.

The following are some of the main reasons:

1) These seedlings will be planted by a higher percentage of inexperienced planters.<sup>3</sup>

2) Planters would get paid significantly less per tree resulting in a decreased amount of time being available to the production paid planter (for planting a proper tree).<sup>4</sup>

3) Contractors will not be able to afford as much training and supervision.<sup>5</sup>

4) Both Ministry and Industry Administrative and supervision requirements will increase. More inexperienced contractors will result in more contract failures and recontracting administrative work. More inexperienced planters will require more supervising by industry and Ministry representatives.<sup>6</sup>

There has been a growing understanding of factors effecting seedling survival and growth. Changes to the existing system for silviculture contracting must incorporate these factors in order to optimize the performance of the plantations and reduce the costs of the intended product — a harvestable crop tree. Changes are required in administrative procedures for silviculture contract work both through Section 88, and directly for Ministry contracts.

The W.S.C.A. recommends the following:

1) permit industry to prefer a contractor who demonstrates high quality and introduce a form of tenure for this contractor.

2) implement a proposal (point system) award procedure for Ministry contracts that reflects both the past performance and planned quality control system of the contractor. This would model the basis on which industry would evaluate its contractors to determine preferredness.

3) implement a stewardship contract in which the contractor guarantees the survival, health and growth of the seedlings to a free growing age.



- 4) Increase the % of area based contract reforestation.
  - 5) Train the current silviculture industry to improve its quality through Ministry funded workshops, incentives and literature.
  - 6) restore regen survey cost recovery through Section 88. The total cost for the Prince George Region of all regen surveys and survival studies for 1984-5 was \$300,000.00. This provides the blue print for that regions \$48,000,000 tree program at a cost of .000625\$/seedling. This also identifies the failures of the planting program and enables problems to be identified.
  - 7) Encourage good quality control, planning and realization of specific objectives by accepting the industry task forces recommended percentage for an overhead allowance through Section 88.
- The W.S.C.A. Board of Directors are all committed to these initiatives being realized. Please take appropriate action and call on any or all of us to workshop and solve any problems that may confront the Ministry is reducing the costs of stocking the maximum number of hectares with healthy, vigorous, free growing crop trees.

Thank you for your time.

Yours truly,

Dirk Brinkman  
President W.S.C.A

#### Footnotes:

<sup>1</sup>Any slow growth performance in the seedlings often results in the seedling not emerging from the grass herbaceous and brush competition and thus diminishes the return on the silviculture investment. It is a serious shortcoming of the past reforestation program that good growth and performance statistics are not now available to direct provincial policy.

<sup>2</sup>These numbers are all based on estimates and ball park figures. These figures are certainly true of the past planting and serve mainly to illustrate how expensive the cheap tree is. Many of the causes of this unnecessarily expensive crop tree originated in past nursery practices and site prescriptions that have been changed.

However, the causes that originate in the field planting programs and their origin in the reforestation contract practices still need to be addressed.

<sup>3</sup>As the price to the planter falls experienced planters will refuse to work, many good planters have already left the industry for this reason. The new firms that could enter the market would be without experienced crew.

<sup>4</sup>When the price per planted tree goes down, the contractor would not reduce the amount of money he pays for gas etc, his hard costs are fixed. The price being paid to the planter is the soft cost that would get squeezed. Presently planters earn from 40 to 70 % of the bid price. In other words reducing what the contract is paid by 10% would likely reduce what planters are paid by 20% (from 15 to 25%). Reducing what planters are paid by 20% will definitely have a negative impact on quality. Today planters are being paid the same \$/tree as they were in 1975-6.

<sup>5</sup>Presently most contractors use a "you'll catch on approach".

<sup>6</sup>In Oregon where the Bureau of Land Management gets work done by low bid contractors who hire "wet-back" poorly paid labour the Bureau has one trained silviculturalist per six planters supervising their contractors. It is incompatible with Ministry plans to reduce staff and administration costs to create an increased requirement for field staff by lowering the price to the planter.

To date the W.S.C.A has not received a reply to this letter from either McPherson or Robbins.

Bus: (604) 253-2685  
Res: (604) 926-6184

ROSS DEAKIN

Deakin Equipment Ltd.  
920 East Cordova Street, Vancouver, B.C. V6A 1M6



## CONTRACTOR'S PERSPECTIVE ON STATE OF THE ART REGENERATION

The following speech outlining the WSCA's position on the current status of silvicultural contracting in B.C. was presented to the Northern Silvicultural Committee's meeting (February 5-6, 1985) on Spruce Regeneration by Richard Dunn of Triple 8 Enterprises.

"Does the contractors perspective on reforestation differ substantially from yours? I think it does and it is having a detrimental effect on the whole process.

While silvicultural knowledge and sophistication is increasing rapidly, and this expanded understanding of the different factors effecting seedling survival and growth is encouraging, it must be applied in a meaningful way in the field. Ideally our tasks as contractors should be to implement practices consistent with state of the art silviculture. Are we capable of keeping pace? Unfortunately, in our present predicament, I think not.

The problem is that your interests as forest managers and ours as contractors are not the same. Your major concerns are with the well-being of the seedlings and improving plantation performance. Ours are to plant as many trees as possible as quickly as possible. Our attitude is dictated by a contracting system which keys almost exclusively on price. A contractor who invests more than minimum effort in any aspect of his operation save increasing production or otherwise lowering per unit cost compromises his price competitiveness and therefore his survival. This congenital defect in the prevailing contracting system is being exacerbated by the tough economic climate. The idea that a cheap bid excuses many sins has been the guiding maxim of contract administration over the past few years. As prices fall, the lower limits of acceptable planting performance are being continually challenged in new and creative ways.

There is no doubt in my mind that the contracting community is now the weak link in the reforestation process. You have a

problem: how to implement your growing silvicultural expertise through a contracting community devolving as at present. You can expect high resistance to your efforts to correct the shoddier aspects of our operations. No different than a seedling subjected to accumulating stresses, the past few years have put us in a survival mode. We simply do not possess the resources to grow in the direction needed.

Anyone involved at the field level will confirm the fact that the pool of experienced planters is being replaced by ever increasing numbers of green workers. How many times have you had to interrupt your normal duties in order to instruct a planter in the most basic aspects of proper planting? As the demands of the job grow and the importance of proper execution becomes ever more apparent, you must ask yourselves if you can afford to have your plantations continually used as training grounds for the inexperienced. Experienced workers are responding to falling prices by sacrificing everything to increased numbers. Planter morale has been devastated, with crew turnover becoming epidemic in many instances. This is not the workforce capable of ensuring proper plantation establishment.

Clearly a change in approach is necessary if your increasing investments in stock quality, site preparation and other facets of forest regeneration are to bear fruit. The key is to align the contractors interest with your own. Improved efforts and performance must be rewarded, not penalized. Only a contractor who knows it is to his benefit to take the responsibility for optimal on-site practices will do so. With proper motivation, he can have a greater effect on in-field operations than anyone including the contract administrator. Make him your ally.

### Some Practical suggestions:

Licensees have the option of choosing a group or a single contractor, educating them in the finer points of successful plantation establishment, and striking a bargain. In exchange for assuming responsibility for implementing sound silvicultural practices the licensee agrees to shelter them from the extremes of the competitive open market. In other words cultivating "preferred



contractors". The client is in effect purchasing goodwill.

Another path to more closely align the contractors goals with your own is by switching to area-based contracts. It is generally conceded that there is a severe seedling shortage. Per tree contracts encourage tree wastage by overplanting, slashing and other inappropriate uses of seedlings. Presently, this wastage is economically beneficial to planters and contractors alike. The extent of the problem is, I believe, underestimated by almost everyone. In contrast, an area-based system eliminates the economic incentive to waste even a single seedling. You are paying for the desired commodity - well stocked hectares - not empty tree boxes.

Perhaps going the whole 9 yards is the answer. Long term stewardship contracts entailing all phases of the regeneration cycle are a possibility. This would give the contractor a direct stake in the final outcome and put performance assessment on an objective footing.

One thing is certain: the degeneration in planting performance must be arrested and put back on the right track. At minimum, a way of broadening bid evaluation criteria must be devised. Many of you have grave reservations about abandoning the strictly price competitive contract award system. However, I do not believe you can afford to do otherwise. The present system may be penny wise, but it is most certainly pound foolish.

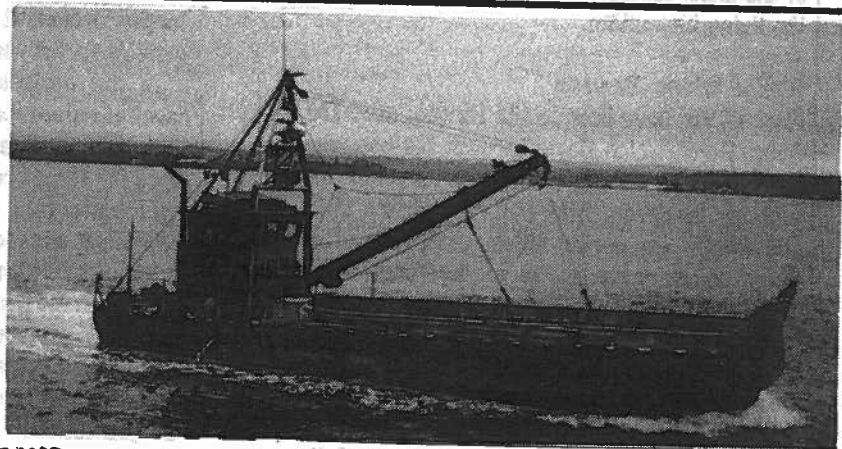
Both industry and the ministry have experienced staff cuts which inhibit their ability to closely supervise projects. This has been coupled with an increased work load. The most viable and cost effective way to solid on-site performance is getting the planting community on your side with properly structured incentives.

We must find a way to improve the deficiencies of the present system and resolve our conflicts of interest or the entire silvicultural process will suffer, and all of us with it.

Richard Dunn

# MARINE LINK

EFFICIENT, RELIABLE,  
ON-TIME  
MARINE TRANSPORTATION



## SILVICULTURAL CONTRACTORS

- Call to arrange the lowest and most cost effective means of getting your crew and equipment to the job site.
- Some capacity to carry crews if arranged ahead of time.
- Hour or charter rates available. • — Loads to 25 tons.

54' Landing Craft - For Hire • Vehicles - Cargo - Salvage  
Stability Tested & Canada Steamship Approved • Fully Equipped - Insured

TIM CAMPBELL

Based In Campbell River  
Box 324 Heriot Bay, B.C. V0P 1H0

Res. Phone 285-3359

MARINE LINK TRANSPORTATION CO. LTD.

2710 Musgrave St. Victoria, B.C. V8R - 5Y6

**"THE QUICK DRAMAS OF OUR  
LIFE  
PLAY OUT AGAINST  
A SLOW MOTION BACKGROUND  
DRAMA OF  
DESERTIFICATION."**

Opening Remarks by Dirk Brinkman at the Inaugural Meeting of The Ontario Silvicultural Contractor's Association.

I recommend this group begin by getting a unanimous consensus on the purpose and objectives of the association. I believe it is the responsibility of members acting on behalf of the association to transcend their individual business interests that exist at the competitive level. One way to transcend your competitive conflicts is to identify the original motivation for your commitment to reforestation. My personal mission in reforestation was radicalized as I awakened to the slow changes that had taken place in southern Ontario since my childhood. The woods in which I first experienced the quiet aliveness of a forest are now gone. The quick dramas of my life—petty personal ambitions, aggressive competition, and business crises—had played out against the slow motion background drama of the imperceptible effects of civilization on the living biosystem.

**Rouge River Drying**

Most of you have been to the Toronto zoo. The Rouge River which flows through the zoo was once a major transportation artery. In the eighteen hundreds, fifty foot river boats plied the Rouge for forty miles upstream. This river commerce was one of the reasons for Toronto's location. During the last two hundred years settlers have cleared most of the southern province's forest cover. Today you could wade across the Rouge River without getting your knees wet. Southern Ontario is drying because of the loss of its forest cover. This nearly imperceptible process of desertification is taking place throughout Canada and the rest of the world.

**Reservoirs Pumps Brushes and Filters**

Trees are multicellular reservoirs and living pumps. Sixty percent of all rain falling on a

forest is transpired back into the atmosphere. This continuous cycle of transpiration and rain creates a moist local climate. Our polluted lakes and rivers could be cleaned by the increased flow of water in a reforested area—even acid rain could be neutralized.

Trees clean passing polluted air. Their leaves and needles scrub the air and absorb pollution. Science Magazine summer 84, estimated that adding a forest the size of Europe to the world forest base could balance the pollution now being generated world wide.

Fallen leaves and needles replenish the soil with nutrients. Tree root systems bind the soil and reduce soil erosion. Reduced siltation in hydro pondages would extend the life span of dams.

If Ontario's unused lands were reforested; agriculture would benefit from increased rainfall and reduced soil erosion; people would experience improved health and lower public health costs from cleaner air and water; the living biosystem would be renewed and, of course, we would be creating exportable wood products.

The forest is the living environment's most powerful force for self-rejuvenation. Reforestation contractors represent the acting edge of the public's will to renew the forest, the environment, themselves. We must become conscious of the role we play in this larger drama. It is our eyes that see the public's forest renewal program in action.

We can declare how effective the current level of reforestation is.

We can mobilize the public will to meet the need for forest renewal.

We can create political commitment at the provincial and federal levels.

We can identify the possibilities for restructuring our industry.

We can set the professional standards for silviculture contracting.

We can improve the survival and growth of the plantations.

In this way Canada's national pride, long term economic well being, and the survival of its living forest world, rests in our hands.

Lets get on with the business of the association.

Dirk Brinkman. President, WSCA.



## WSCA's COMPREHENSIVE BUSINESS LIABILITY INSURANCE PROGRAM

The detailed silviculture specific coverage of this comprehensive business liability insurance package was researched over several years and provides the best coverage known to the WSCA. Contractors without insurance have had fires and other incidents which put them out of business. This membership association policy is only available to WSCA members. It is possible to get coverage that qualifies you for bidding, but it is not, however, complete coverage. Individual non-member rates are 25% higher. This 25% discount in the cost of this policy may equal your annual WSCA membership dues.

### Eligibility Requirements

1. a member in good standing of the W.S.C.A
2. not less than 2 years experience as a silvicultural contractor
3. at least 80% annual gross revenue derived from planting, thinning, and site rehabilitation activities
4. no business operations in the United States.

It was their recommendation that a master policy for the Association be issued by the Canadian Northern Shield Insurance Company formerly ICBC, with individual liability certificates issued to each member:

A selection of liability limits from one to five million dollars inclusive is available under this program. In addition, a \$500,000 Fire Fighting Expense coverage has been built into the policy.

All eligible members in good standing with the Association would have the opportunity of obtaining coverage under the program, subject to completion and signing of the Liability Survey (Schedule A mailed out to all members), and payment of the estimated annual premium as outlined below in Table 1.

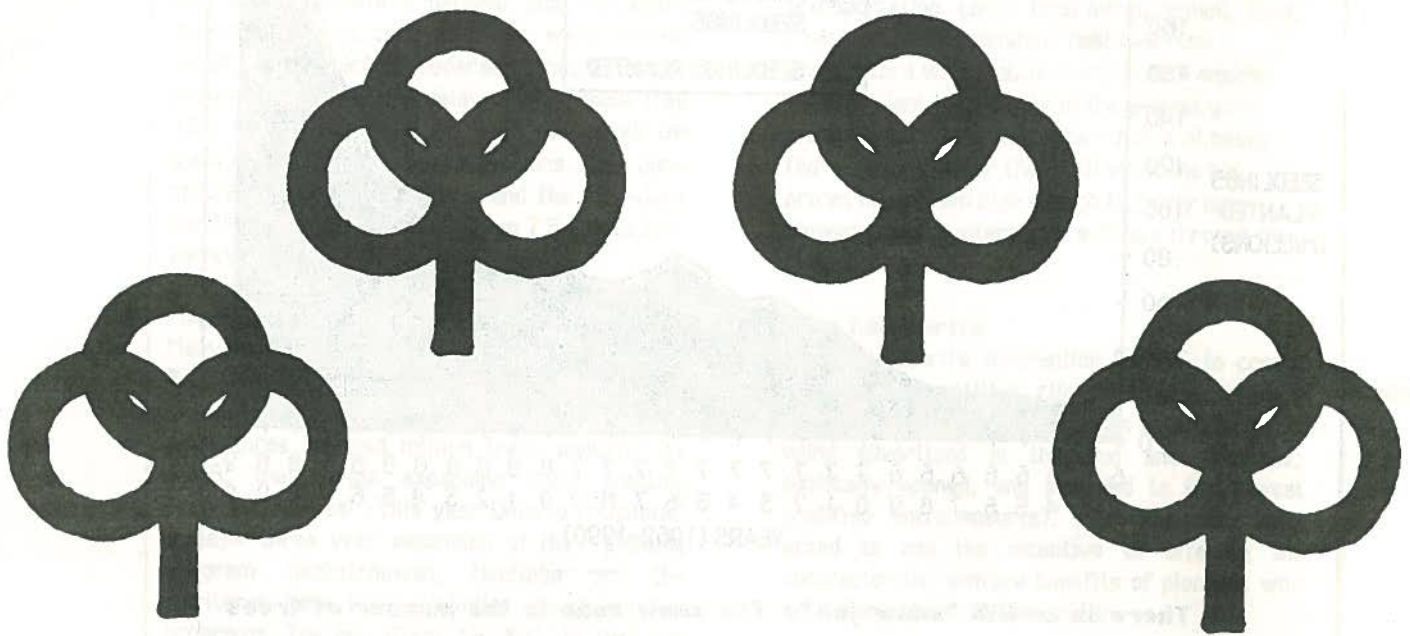
The policy includes the following: a) Premises, Property & Operations; b) Products and/or Completed Operations; c) Contractors Protective; d) Blanket Written Contractual; e) Contingent Employers Liability; f) Cross Liability Clause; g) First Aid Malpractice; h) Owned and non-owned Watercraft under 500 tons GR; i) Employees as Additional Insureds; j) Personal Injury Coverage (Libel, slander); k) Non-owned Automobile Coverage; l) Unlicensed Vehicles Coverage; m) \$500,000 Fire Fighting Expense Coverage

### Rating Notations:

1. Deductibles: \$250 CGL on Prop. Dmg., \$1000 Fire Fighting Expenses
2. Rate: is annual adjustment rate per \$1000 of gross revenue
3. Higher Limits: available quotes on request
4. Activities other than planting and thinning may require additional premium charges and as a general guide, if over 10% of gross revenue is derived from burning or other activities, an additional 25% will be applied to rate and minimum premium.

**Table 1. Western Silvicultural Contractors' Assoc. Rate and Premium Structure**

Group	Gross Receipts	\$1million CGL \$1/2 million FFE per \$1,000 GR Min.		\$2 million CGL \$1/2 million FFE per \$1,000 GR Min.	
A	\$100,000-\$250,000	\$1.25	\$500	\$1.50	\$650
B	\$250,000-\$500,000	\$1.25	\$600	\$1.50	\$750
C	\$500,000-\$750,000	\$1.25	\$750	\$1.50	\$950
D	\$750,000-\$1,000,000	\$1.25	\$900	\$1.50	\$1,150



## TREE PLANTING JAMBOREE AT EXPO '86

Ken Druska, author of "Stumped" proposed to the WSCA that members participate in brainstorming and organizing a reforestation celebration at Expo 86. A June 7th meeting between COFI, MOF, BCFP, CIF, WSCA, ABCPF, CFA, BCIT, FIR, UBC Faculty of Forestry and other Forestry groups was held in COFI's boardroom.

One week is being set aside in early July to gather the crews in a province-wide jamboree complete with drama and displays. The content of the displays and events were declared at the meeting to be within the natural domain of treeplanters and contractors to determine. There were some fears that these backwoods individualists that contract and plant the province's trees would embarrass the people of the province and the government. However, it was agreed that of all the phases of silviculture (i.e. cone collection, nursery, planting, brushing, thinning and fertilizing), celebrating the motherhood act of planting the seedling by experienced tree planters could most successfully promote forest renewal and represent the forest community. So it is on. It is certainly the WSCA's responsibility to promote reforestation in B.C., and this event could be a valuable way to contact and educate the public, strengthening the value of a strong renewal image for B.C.'s economy.

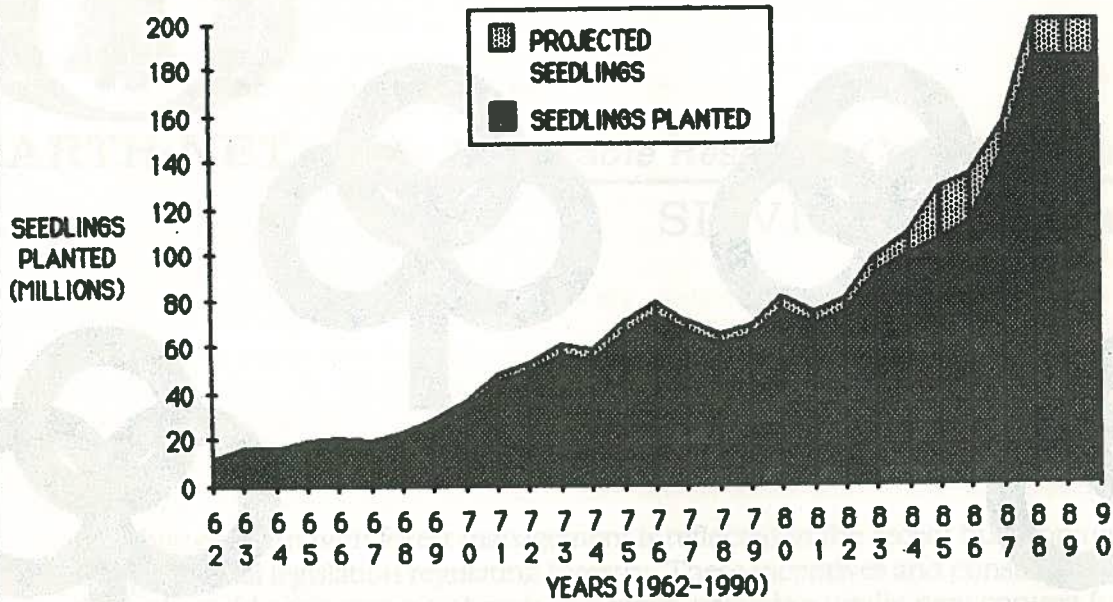
So far the following ideas have been presented by the WSCA:

1. The Honorable Tom Waterland ceremonially plants the 1.5 billionth tree to be planted in B.C., and the Honorable Gerry Merrithew comes and plants the 100,000,000th tree financed by the federal government.
2. A 100' long slab of a Douglas-fir tree (with the maximum possible diameter— say 10' at the base) be placed permanently at B.C. Place and all planters who have planted 1 million seedlings have their names engraved on the slab. All contractors and logging companies who have planted over 100 million trees and all administering foresters who have administered the planting of over 100 million trees should also be included. There would be an area set aside for each of these honours including those ministers during whose rule have planted over a billion trees.
3. A tree planting competition. Contractor judging efficiency of motion, perfection of technique and quality results for each of shovel, mattock, spear and dibble tools with 10 trees for each trial.

Other suggestions for events to promote forest renewal in British Columbia and/or opinions will be very much appreciated by the WSCA.



## 28 YEARS OF PLANTING HISTORY



There is an 8% "snow job". The snow zone is the number of trees projected as opposed to the dark zone or number of trees planted

## EDIBLE ISLAND STORE and WAREHOUSE

We can meet your camp kitchen needs; buy in bulk and save

ALL THIS, PLUS MUCH, MUCH MORE!!

- rice, grains, cereals, beans, & pastas
  - flours, milk powders, & baking supplies
  - nuts, seeds, dried fruits, & trail mixes
  - honey, peanut butters, & tahini
  - coffees, teas, herbs & spices
  - popcorn, oils, snacks & yogurt
  - hot sauce, soy sauce & condiments
  - tofu, veggie burgers, falafel mix
  - fresh produce, free-range eggs
  - juices, sodas, lemon juice powder
- free catalogue

Box 110  
MERVILLE, B.C.  
V0R 2M0  
(604) 337-84



### **A Contracted Spring 1985**

Late spring snowfalls delayed and repeatedly interrupted coast contracts. (we were snowed out of one contract six separate times.) Interior planting was generally delayed until about May 12th when a continuous hot spell melted all the snow on both low and high elevations. Late June contracts soon became early and the May-June planting window contracted from 7.5 weeks to 6 weeks.

### **Migrant Flows Slow**

Many of the professional planters who worked in B.C. came from the eastern provinces. The Quebec government has made a commitment to plant three hundred million trees annually by 1988; they began expanding their planting program this year. This year Ontario completed a major three year expansion of their planting program. Saskatchewan, Manitoba and the Maritimes have started similar though smaller programs. The net effect for B.C. is that the traditional eastern migrant planter is beginning to stay home to plant. Supernatural B.C. is no longer such a unique 'go west' magnet.

### **Price Wars**

While the seedling supply grew slowly there was a surplus of contractors and planters. Planting contracts were in high demand. The number of people unemployed and willing to plant for less was high—serious price wars resulted. From 1981 to 1985 the volume of seedlings went from ninety-six million to one hundred and twenty three million (a 28% increase) and tree prices fell 20%.

In 1986 the province will have 30,000,000 more trees to plant than in 1985. Although in 1985 few, if any contractors were prepared for the shortened season, all contractors know about the 25% increase in the number of trees to be planted in 1986. Now that the seedling supply (Canada-wide) is growing, experienced and good potential planters are in high demand and contractors will be able to bid higher.

### **Professional Planters.**

Contractors attract high quality and productive planters to the industry and their crews by the promise of high earnings and secure working conditions. In spring 1985, larger or new crews fielding more green planters than usual resulted in contracts taking longer than expected.

Contractors providing any services for their planters (eg. supervision, checking, transportation, camp, first aid equipment, food, cook, etc.) had equivalent cost overruns. Contractors with planters whose skill enables them to plant immediately in the easiest good plantable spot have a greater chance of being fairly rewarded for that skill when the bid prices have risen high enough to fairly pay slower green planters who still see through the slash darkly.

### **Free Enterprise**

Treasury Board's instruction to MOF to create the most competitive climate in reforestation possible resulted in all contracts on crown lands being advertized in the Sun and Province; publically opened; and awarded to the lowest qualified entrepreneur(s). MOF has also been asked to add the incentive of offering the contractor the welfare benefits of planters who are taken off the welfare rolls.

### **Good Luck!**

Opportunities for these inexperienced entrepreneurs appear limited only by the willingness of the labour force to work—i.e. bear the tedious and frustrating exposure to painful stoop labour in a hostile environment with confronting crew and peer pressures in exchange for low wages. Some contractors are complaining about the enervating after-effects of make-work programs that many bush people have been on. A number of planters only seem to be after ten weeks of maximum UIC contributions. When the going gets tough it is much easier for a 'local' to go home. Generating the personality chemistry which gets crews to 'go for it' out of locals, rookies, cynical old-timers and welfare recipients will require a spicy dose of entrepreneurial good luck.

### **Clean up contracts**

These new entrepreneurs, jacked up by their personal optimism and some 'inside' production figures, are going to bid low. Experienced contractors, anxious about securing a season in the new competitive climate will also bid low. In 1985 more contracts were dropped or shut down in mid-season due to over-commitment, underbidding, lack of experienced planters or misrepresentation, than in the previous three or four years combined. These contracts become available to higher bidders or offered



Contractors providing any services for their planters (eg. supervision, checking, transportation, camp, first aid equipment, food, cook, etc.) had equivalent cost overruns. Contractors with planters whose skill enables them to plant immediately in the easiest good plantable spot have a greater chance of being fairly rewarded for that skill when the bid prices have risen high enough to fairly pay slower green planters who still see through the slash darkly.

#### **Free Enterprise**

Treasury Board's instruction to MOF to create the most competitive climate in reforestation possible resulted in all contracts on crown lands being advertized in the Sun and Province; publically opened; and awarded to the lowest qualified entrepreneur(s). MOF has also been asked to add the incentive of offering the contractor the welfare benefits of planters who are taken off the welfare rolls.

#### **Good Luck!**

Opportunities for these inexperienced entrepreneurs appear limited only by the willingness of the labour force to work—i.e. bear the tedious and frustrating exposure to painful stoop labour in a hostile environment with confronting crew and peer pressures in exchange for low wages. Some contractors are complaining about the enervating after-effects of make-work programs that many bush people have been on. A number of planters only seem to be after ten weeks of maximum UIC contributions. When the going gets tough it is much easier for a 'local' to go home. Generating the personality chemistry which gets crews to 'go for it' out of locals, rookies, cynical old-timers and welfare recipients will require a spicy dose of entrepreneurial good luck.

#### **Clean up contracts**

These new entrepreneurs, jacked up by their personal optimism and some 'inside' production figures, are going to bid low. Experienced contractors, anxious about securing a season in the new competitive climate will also bid low. In 1985 more contracts were dropped or shut down in mid-season due to over-commitment, underbidding, lack of experienced planters or misrepresentation, than in the previous three or four years combined. These contracts become available to higher bidders or offered

for rebid or negotiation. Some of these contracts, originally bid at 14 cents per tree ended up being planted at over 30 cents per tree.

#### **View From Victoria**

Until enough of these "disasters" occur, Treasury Board will not change their ruling. Although these disasters involve no pay to planters, losses to contractors, legal claims, poor quality etc.; Silviculture Branch and Treasury Board experience them as "hassels" and measure the costs in increased administrative time, other projects not getting adequate attention, the mortality of seedlings waiting on-site for another contractor and most of all the increased contract prices. WSCA proposals to the ministry and press coverage has been extensive and ineffective to date. The Treasury Board is determined to see the end of the movie.

#### **Mirror Image**

In tree planting prices are established by what contractors bid. Contractors bid based on what they think of each other. Contractors always see each other at the viewings and think that there is a lot of competition. Bidding against a virtually identical competitor requires that you have to underbid yourself when there is a shortage of work. A canny judgement has to be made about the probability of the success of the new entrepreneur. It is encouraging to note that during the two years after the Alberta Forest Service tightened up on their checking procedures—like B.C. is now doing—not one new contractor survived a season. When the prices are depressed too low for inexperienced contractors to have the latitude to permit the kind of mistakes inexperience must make in order to learn; that is a kind of security for informed professional contractors within which prices can rise.

#### **Dawn?**

After the dark 300 year night of harvesting Canada's forests without reforesting, the recent Canada-wide dawn of forest renewal carries with it the promise of a sunrise for a pilot reforestation project in the west. The silviculture industry in the west looked like it had had its day. In this primitive dawning of forest renewal, a silviculture association, which communicates to the public, government and silvicultural contractors has taken up the responsibility for ensuring the success of rejuvenating B.C.'s most valuable renewable resource.

Dirk Brinkman





Telephone (604) 941-8566 Res. 987-3580  
70 Golden Drive, Mayfair Industrial Park  
Coquitlam, B.C. V3K 6B4

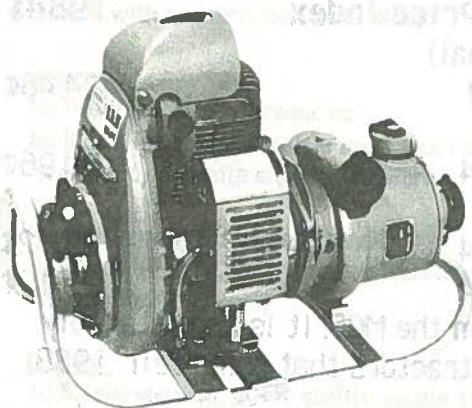
E. W. (Bud) Chappell  
Fire Control Division

WAJAX INDUSTRIES LIMITED



## WAJAX MARK 3 CENTRIFUGAL

PORTABLE 4 STAGE HIGH PRESSURE FIRE PUMP (PATENTED)



## Rack Hose 500 • Spec 1500

All polyester single jacket interior protection hose for buildings and plants. Light weight and compact, replaces unlined linen foot for foot. Approximately 1/2 the weight of standard rubber lined single jacket hose.

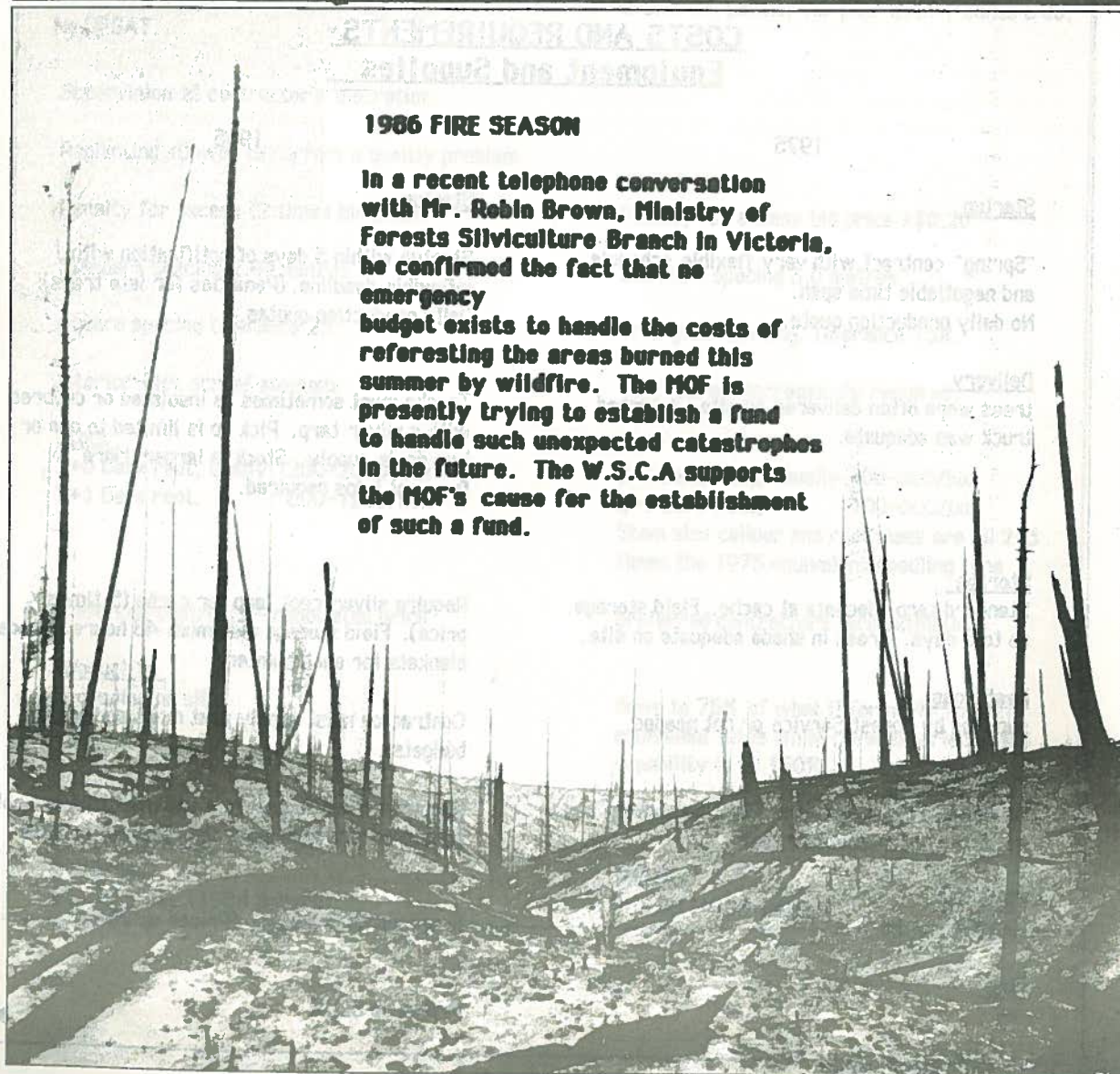
INDUSTRIAL FIRE HOSE  
RUBBER LINED



Ⓝ **NIEDNER**

### 1986 FIRE SEASON

In a recent telephone conversation with Mr. Robin Brown, Ministry of Forests Silviculture Branch in Victoria, he confirmed the fact that no emergency budget exists to handle the costs of reforesting the areas burned this summer by wildfire. The MOF is presently trying to establish a fund to handle such unexpected catastrophes in the future. The W.S.C.A supports the MOF's cause for the establishment of such a fund.





## A COMPARISON OF COSTS ASSOCIATED WITH 1975 & 1985

A comparison between 1975 and 1985 reveals some dramatic changes have taken place. This data was collected by Dirk Brinkman, Tony Harrison and Karl Lowland, three of the WSCA Directors.

	Average Price	Consumer Price Index (national)	1984\$
1975	11.7	2.091	24.46¢
1976 -			
Spring	12.84	1.944	24.96¢
1976 -			
Fall	12.1	1.944	23.52¢
1982	20.1	1.104	22.19¢
1983	This data is not yet available from the MOF. It is unmistakably		
1984	the experience of the planting contractors that price fell 1985		
	more sharply in 1983, 4 and 5.		

### COSTS AND REQUIREMENTS Equipment and Supplies

1975	1985
<u>Startup</u> "Spring" contract with very flexible schedule and negotiable time span. No daily production quota.	<u>Startup</u> Startup within 5 days of notification with inflexible deadline. (Penalties for late trees). Daily production quotas.
<u>Delivery</u> trees were often delivered on site. A tarped truck was adequate.	Trucks must sometimes be insulated or covered with a silver tarp. Pick up is limited to one or two day's supply. Stock is larger. More frequent trips required.
<u>Storage</u> Standard tarp adequate at cache. Field storage up to 5 days. Trees in shade adequate on site.	Require silver-cool tarp for cache (5 times price). Field storage maximum 48 hours. Space blankets for each planter.
<u>Peat Moss</u> supplied by Forest Service or not needed.	Contractor must supply peat moss and mixing budgets.
<u>Fire Equipment</u> Loaned by Forest Service. Planting shovels and mattocks acceptable fire tools.	Required. Planting shovels and mattocks are not considered fire fighting tools. (Prices up 80%)
<u>First Aid</u> No WCB checks.	Frequent WCB checks. (Prices up 70%)
<u>Fuel</u> —	Prices up 500%

## 1975 (cont'd)

### WCB

8.66% with no merit/demerit rating.

### Insurance

No liability insurance required.

No ICBC. Reasonable vehicle insurance rates.

No security deposits on industry work.

No employment Standards Branch.

No PRWA (Pacific Reforestation Worker's Association)

### Quality

10% tolerance. ie. 90+% quality equals 100% pay.

Under 75% quality, no pay.

No outside influence trees.

No UPSAT.

Supervision at contractor's discretion.

Replanting allowed to correct a quality problem.

Penalty for excess (2 times bid price)

Standard spacing 2.44 metres

Square spacing tolerance 25%

Interior-kick screef adequate

### Stock

2+0 Bare root, usually 1200-2000/box

2+1 Bare root, 800-1200/box

preferred contracts - negotiated price

### Production

Depending on site

### Planter Earnings

\$150/day

\$313.65/day (1984 dollars)

## 1985 (cont'd)

5.67% with a merit/demerit rating.

\$1 million liability insurance required.

ICBC monopolized vehicle insurance rates up to 50% security deposit required.

Employment Standards Branch. Enforced standards  
PRWA

5% tolerance ie. 95% quality equals 100% pay.

Under 85% quality, no pay.

Outside influence trees

UPSAT ie. penalty for poor quality bonus tree.

Penalty for excess bid price +\$0.20

Standard spacing 3.0 metres.

Triangular spacing. Tolerance 15%.

1'x1' screef increasingly required.

2+0 Bare Root, usually 400-800/box

2+1 Bare Root, 100-600/box

Stem size calliper and root mass are all 2-3 times the 1975 equivalent seedling type

preferred contractors face extinction

down to 75% of what it formerly was on equivalent sites while crew experience and capability is up 150%.

\$90/day

\$85.50 (1984 dollars)



## REPLANTING PROGRAM

# IWA wants forestry fund

by JOHN SPILKER  
Staff reporter

The International Woodworkers of America wants the provincial government to immediately set up a \$600-million reforestation endowment fund to replant trees in B.C.'s dwindling forests, IWA regional president Jack Munro said here Saturday.

Speaking to a luncheon at the Prince George Regional Forest Exhibition, Munro outlined the IWA's six-point program for the revitalization of the forest industry.

He said several recent forestry reports clearly show the province's forests are in trouble and another 7,000 forestry jobs could eventually be lost. The IWA has already lost 20,000 members since the recession started, through technological change and increased productivity.

Munro said the provincial government has already spend hundreds of millions of dollars on other projects including northeast coal and Expo 86 and should do something for the faltering forest industry.

The \$600-million forestry fund would be administered by officials

of government, the industry and labor. Only interest payments from the fund would be spent each year for reforestation, he said.

The interest, along with matching funds from the federal government and money already spent by the industry, would amount to about \$280 million per year, he said.

Munro said Sweden has a model reforestation program because that country has about half the amount of forest land of B.C. but harvests almost as much wood.

"They plant over 400 million trees per year. We are boasting that we will soon plant nearly 200 million per year," he said.

Besides more tree planting and construction of more tree nurseries, he said the province should spend about \$20 million a year out of the fund to reclaim forests that have been turned into unproductive farm land.

He also called for more forestry research and development in addition to government funding of a world-wide marketing agency for smaller forestry companies.

"If the public knew what was

happening to the forest industry, we wouldn't let an MLA out of this city without a firm commitment that he's going to insist that this political nonsense and bickering between Victoria and Ottawa stop and they sign the (agreement) and plant some trees in this province," Munro said, referring to a feud between the federal and provincial governments over the proposed \$300-million, five-year forestry agreement.

★ ★ ★

VANCOUVER — Canada is about to take at least one glove off in its battle with the United States over lumber imports.

"I'm giving a speech on Tuesday in Washington," said Mike Apsey, president of the Council of Forest Industries, "and I'm not going to be the jolly Mike Apsey I usually am."

Apsey, who is taking the major responsibility for co-ordinating Canada's response to U.S. protectionism in lumber trade, said the U.S. threat is growing, and the time has come to intensify the Canadian response.



THE NEW-FEDERAL-provincial forestry agreement — which will beef-up replanting efforts in B.C. — is seen by many students as the key to their future. For graduating foresters, jobs are scarce. It's becoming popular for graduates to form their own companies and do work on a contract basis.

## NO ROOT PRUNING

At the WSCA annual general meeting Robin Brown (Silviculture Branch Victoria) presented the root growth potential (RGP) trials that David Simpson had done in 1984 as the basis of Charlie Johnson's fall 1984 directive that there will be no more root pruning in B.C.. David Simpson, MOF researcher Kamloops Region, in a six week root growth potential trial with pine and spruce, found unpruned roots generated 40% more root tips and root growth than pruned roots.

### DR. LAVENDER

Following this Dr. Dennis Lavender, head of the Silviculture Department at U.B.C outlined his experience with root pruning fir over the last 15 years while teaching at Oregon State University. Dr. Lavender questioned the soundness of basing a province-wide directive to root prune all species in B.C. based on a 6 week trial for pine and spruce. His own research plots in fir plantations, monitored over several years, indicated that pruning to 10"-12" resulted in larger, healthier seedlings. He cautioned further that the results of his trials—which involved more seedlings over a longer period of time—are also questionable. Dr. Lavender went on to list the many factors that can influence field and lab trials and confuse definitive conclusions.

### ROOTS PRUNED '85

The contractors that attended the WSCA general meeting were obviously all delighted to witness such an erudite critique of the controversial root pruning policy. Perhaps as a result of this examination of the policy and perhaps due to other factors MOF relented and root pruning I though lighter

and more selective) resulted during much of the 1985 spring lifting.

### RENEGOTIATION

Most contractors who viewed and bid their spring planting season in the fall did not know that a 'no root pruning' policy was being implemented at the same

time. Bids were placed and contracts awarded without calculating the cost factors longer roots create. Robin Brown announced at the WSCA general meeting that MOF was prepared to permit renegotiation for longer roots in the coming spring. Although not all contracts received the same

negotiation and not all contractors were aware of this option, this provided a necessary relief from some unexpected field difficulties for WSCA members and informed contractors. These events are mute testimony to the need for a regular industry newsletter.



## Forestworld Supplies Ltd.

304 EAST 1ST AVENUE,  
VANCOUVER, B.C., CANADA V5T 1A9  
PHONE (604) 875-1444



- Quality
- Innovation
- Dependability

Serving  
Silviculture  
With  
Custom-Designed  
TREE-PLANTING  
BAGS,  
in a wide variety  
of Sizes and  
Configurations...

OVER  
100 MILLION TREES  
and  
FIVE YEARS  
of PROVEN  
EFFECTIVENESS

**Forged Planting Spades,**  
Regular and Jumbo...

**Planting Spears,**  
(The speed shovel)  
for Container Stock.



Surveyors' Tape □"  
Silver Tarps  
Mattocks, Dibbles  
Hickory and  
Ash Handles  
Seedling  
Protectors



**ALWAYS THE BEST QUALITY  
FOR THE BEST PRICES  
60-Day Terms  
On Approved Credit**