

**DOCUMENTATION  
OF  
ENVIRONMENTALLY SENSITIVE TRAINING  
FOR  
FRONT LINE FOREST WORKERS**

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Newfoundland Forest Service

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## **ABSTRACT**

The purpose of this report is to identify environmentally sensitive training completed to date by various organizations involved in training and/or certification programs for the front line forest worker. This report is designed to be a framework document and may be updated as necessary. The report should not be considered a comprehensive document of all of the training that has occurred either formally or informally.

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## DISCLAIMER

The study on which this report is based was funded in part by the Western Newfoundland Model Forest corporation.

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## **PURPOSE**

The Western Newfoundland Model Forest, (WNMF) in particular; Corner Brook Pulp & Paper Ltd. (CBP&P), Abitibi-Price Inc. (A-P), the Newfoundland Forest Service (NFS), and the Centre for Forest & Environmental Studies (CFES) are preparing to offer a "train the trainer" session in 1996 in order to instill environmentally sensitive practices within front line forest workers. As a first step we are documenting what related training has already occurred in Newfoundland and Labrador.

## **History**

Various training initiatives and the certification processes have been ongoing, primarily as the result of a need to:

- satisfy occupational health and safety concerns
- adjust to the adoption and adaption of new technology and new methods
- meet new environmental regulations, guidelines and policies set by company, by the government and the industry
- maintain and/or enhance productivity and quality
- ensure there is an adequately trained labour force for all aspects of the industry
- expose the employee to many areas of forest work thus making the employee more employable.

## **TRAINING TO DATE**

The identification of past various training initiatives will ensure that:

- we can avoid duplication of existing training programs as well as assess prior learning of front line forest workers
- there is proper identification of environmentally sensitive training gaps and take the necessary steps to fill these gaps
- the process identifies the individuals, organizations and departments that should be involved in the train the trainer program
- documentation, standardization, accreditation and packaging occurs ensuring a provincially and nationally recognize train the trainer program

### **Training Categories & Classification**

Training to date would include that which was directed towards veterans of the workforce, new employees, and those that were parachuted into the industry as the result of job creation and development either short-term or long-term.

Training may be classified as formal and informal, certified and non-certified, field oriented or classroom oriented and off-season rather than on the job.

### **Front Line Forest Workers**

The front line forest workers are categorized as those closest to the trees. They may be classified as full-time, seasonal, part-time or other which would include contractual. The front line forest worker may be working as an employee of either Corner Brook Pulp and Paper, Abitibi-Price Inc., the Newfoundland Forest Service, a Forest Contractor, Newfoundland Power, Newfoundland Hydro, or other group that carries out work for the forest industry. These front line workers are employed in the logging industry, the saw milling industry, the silviculture industry; which would include thinning, stand tending, stand establishment, nursery, planting, protection and other related areas.

### **Woodlands Labour Force**

Corner Brook Pulp and Paper employs 1100 forest workers in its woodlands operation, Abitibi Price in Stephenville employs 550 forest workers in its woodlands operation. (Section 2.3; Social and Community Consideration, WNMF proposal) Domestic cutters number in the thousands and other forest workers/users such as Newfoundland Hydro, Newfoundland Power, the Mining Industry, etc all have a stake in working in the forest.

**Table 1.** The following table represents the number of front line workers that may requiring training for Corner Brook Pulp & Paper (WNMF)

Job Classification Front line (Field)	Loggers	Skidders	Forwarder	Mech. Harv.	Escavator Loader Tractor	Trucker	Scaler	* Other
Craig Biggin (union)	25	-	2-3	-	1	3	1	1
Wes Pittman (unionized)	10	5	-	-	1	3	1	1
Glenn Cross (non-unionized)	10	3	-	-	2	2	1	1
Reg Pittman (non-unionized)	10	2	-	-	-	2	1	1
Craig Pittman (non-unionized)	10	2	-	-	2	2	1	1
WESCO (union)	-	-	-	5/12 hr shift	3	2	-	2
AJS Mech. (union)	25	2 Grapple	2	5/12 hr shift	3	3	-	1
Ray Rodger (non-union)	10	1-2	2	-	1	2	1	1
Ernest Hillier (non-union)	5	1	-	-	1	1	1	1
<b>Total</b>	105	16-17	6-7	10	14	20	7	10

*Total* number within WNMF for CBP & P is 188 front line workers.

Note: **\*Other\*** means mechanic, foreperson, contractor. These are estimates only and the number of truckers is designed to support wood contract only; not actually owned & operated by the contractor. (Silviculture workers or individuals cutting on company limits not included) Also note that these numbers fluctuate weekly, seasonally and annually.

### Provincial

A comprehensive list of individual roundwood harvesting contractors (Appendix I) has been compiled by Eric Young. This list is categorized by sawlog/sawmill operations, pulpwood harvesting operations and firewood operations. Approximately 60 of the companies have been outlined as major players in the forest industry. There are approximately 1900 sawmills licensed which accounts for approximately 5,600 front line workers in the saw milling industry. Another 1200 are estimated for the pulpwood and firewood industry. (This does not include domestic cutters.)

## **Silviculture Labour Force**

Three classes of workers have been identified in a report titled "The Silviculture Labor Force in Newfoundland and Labrador - A Socio-Economic Profile". (Rugo, Lorenzo. 1992) The classification of workers included Forest Renewal workers who were workers (approximately 177 in 1990) that were 15 years of age or older and received pay or profit for forest renewal which is defined as .... the process of establishing a tree crop on forest or other suitable lands through artificial reforestation such as sowing seeds or planting, and natural regeneration such as modified harvest practices. In this study the data pertains exclusively to the forest renewal occupations of planting container and bare-root seedlings. The second class was titled; Stand Tending Workers who were workers (approximately 399 in 1990) that were 15 years of age or older and received pay or profit for stand tending which is defined as ...caring for an ...established stand at any stage of its life for the benefit of the forest crop. In this study the data pertains to the stand tending occupation of pre-commercial thinning. The last classification was that of Nursery Workers who were workers (approximately 91 in 1990) 15 years of age or older and received pay or profit for providing silviculture services which is defined as ... producing seedlings and seed for new forest crops in a nursery setting .... the study shows that silviculture workers in Newfoundland and Labrador were mostly young males with children, except those involved in nursery activities, who were more likely to be middle-aged females with one to three children. As a group, these workers were fairly well educated: over half in each group had completed high school; 12%, on average, had some forestry education; approximately 50% had silviculture training; and on average, 47% brought four or more seasons of experience to their jobs. ( See Table 2, page 8, Rugo, L., 1992)

**Table 2. Human Capital Assessment**

<b>Table 2 - Human Capital Assessment</b>			
	<b>Forest Renewal Worker</b>	<b>Stand Tending Worker</b>	<b>Nursery Worker</b>
<b>Formal Education</b>	-76% completed high school	-55% completed high school	-69% completed high school
<b>Forestry Education</b>	-15% have forestry education -dominant type: Forest Technology	-12% have forestry education -dominant type: Forest Technology	-8% have forestry education -dominant type: Forestry General
<b>Silviculture Training</b>	-36% received training -major training source: private	-87% received training -major training source: mixed	-25% received training -major training source: public
	<b>Forest Renewal Training</b>	<b>Stand Tending Training</b>	<b>Nursery Worker Training</b>
	-28% received training	-76% received training	-100% received training
<b>Experience</b>	-36% no seasons of experience -high job turnover -14% four or more seasons of experience	-16% no seasons of experience -low job turnover -29% four or more seasons of experience	-0% no seasons of experience -low job turnover -99% four or more seasons of experience

Source: Rugo, L. 1992

**Summary of Table**

Of the forest renewal workers surveyed, 36% had training in silviculture and 28% had training in tree planting. Most workers who received training in planting obtained it from company sources (46%). Of the stand tending workers surveyed 76% indicated they had received training in stand tending which was related to silviculture training; thinning fertilization, and protection operations. Of the nursery workers, 25% had received nursery training which included seedling lifting, planting, preparing seedling beds, thinning and cutting and packing and shipping.

## **TRAINING**

Training is categorized into two separate categories; that which is “directly” related to “Environmentally Sensitive Practices” and that which is “indirectly” related to “Environmentally Sensitive Practices”. Both categories are included here to provide a base from which we may identify those individuals that will be targeted as trainers and trainees and those agencies to be initially included in the “train the trainer” program.

### **Training Initiatives to Date/Directly Environmentally Sensitive**

#### Corner Brook Pulp & Paper Ltd (full-tree logging)

Corner Brook Pulp and Paper Ltd. has been genuinely concerned about their full-tree logging and environmental practices on sensitive sites, and as a result of a joint initiative with the Western Newfoundland Model Forest Program they initiated a project titled “Respecting Fish Habitat And Other Environmental Values While Conducting Logging Operations On Sensitive Sites In Western Newfoundland”, (J. R. Leach, Aug.94). The project was undertaken to ... “study ways and means of conducting logging operations within the sensitive conditions in a manner which would: a) preserve the productive capacity of streams, b), respect water quality and c), minimize terrain disturbance, while remaining cost effective and respecting fiber requirements and future fiber supplies.” One of the major recommendations (6.(f)) of the Jeff Leach report was that the company hire an individual (Kevin Parsons) to determine the most environmentally-wise ways to harvest the sensitive areas. Hard decisions were made based on conditions such as; season (winter/summer), accessibility, buffers (along brooks streams and ponds), specific logging equipment (grapple skidders and clambunk eight wheel tracked skidders, shortwood harvesters and feller bunchers), operating shifts (day/night), slopes, depth of topsoil, cutting schedules, methods of planning, follow-up and evaluation. The project has enlightened everyone involved in how this type of detailed analysis, increased environmental awareness for front line forest workers, and constant contact with the contractors has resulted in better harvesting practices and less detrimental effects to the environment. One of the recommendations being considered is to move into a shortwood system replacing a tree feller buncher with two shortwood harvesters and making some modifications to a clambunk skidder utilizing a forwarder rack. The increased mobility of the shortwood harvesters and the environmentally sensitive converted clambunk skidder could enable the company to go back and harvest environmentally sensitive areas that were by-passed in the first round utilizing the full-tree system. As an example, one of the practices employed was the use of a rod to measure bog depths. This enabled operators to make judgement calls regarding environmentally sensitive terrain and benefited company, operator and the environment as machines were not as prone to become stuck in very wet, boggy areas resulting in less down time.

In addition to on-going training for loggers, an intense Pre-Commercial Thinning Training Program (1980's) was conducted at Loggers School road. (statistics requested April 96) (See formal training CBP&P - page 9)

## Abitibi - Price Inc.

Jim Evans of Abitibi-Price conducts on a regular basis an "Environmental Awareness Program" for the woodlands division. As per a conversation with Don Brain they have extensively conducted environmental awareness training through videos, handouts, ID cards, utilizing methods from other companies i.e. STORA, randomly choose areas for an internal audit of the management plan and hired Price-Waterhouse to evaluate and rate such characteristics as biodiversity and items directly related to CSA/ISO 14,000 certifications. This was used as a baseline from which to point out areas needing improvement and to formulate an action plan. They have also looked at grading techniques, taken springs out of roads using weeping tile, have a demonstration area through an agreement with fisheries and co-sponsored by CASEC showing various forms of environmental management for bridges, culverts, roads etc. They have zero tolerance for fuel spills and all systems are dyked with locked shut-offs. They have conducted two-day seminars for back-hoe, tractor operators and others. They are doing work in hydroseeding, sandbagging and utilizing silt traps called fisheries cofferdams. They have made a video with Dave Quinton of Land & Sea. Some specific fact sheets that are used while working in the forest (compliments of DFO) are entitled **Instream Work In The Dry/Temporary Diversion**, Number 12, 1994, **Instream Work In The Dry/Cofferdams**, Number 10, 1994, **Temporary Fording Sites**, Number 4, 1994, **Ditching**, Number 3, 1994, **Effects of Silt on Fish and Fish Habitat**, Number 1, 1994 and **Temporary Bridges**, Number 8, 1994. (For a complete listing of DFO fact sheets see Appendix of document "Framework for Development and Delivery of Environmentally Sensitive Front Line Forest Worker Training, L. MacDonald, 96)

As an example of an Abitibi-Price Inc. environmentally friendly initiative, a card/informal contract has been circulated to employees regarding fuel spills, the handling of petroleum products and some general environmental information.

Note: Both companies conduct professional safety training and training in work methods utilizing their safety supervisors and training.

## Formal Training/Seminar for Crown Land Operators

One-day seminar by NFS, Fisheries & Oceans, Wildlife, CFS, Water Resources in Clarendville, Lewisporte, and Deer Lake (Spring 95) for Crown Land operators on the effects of harvesting on other natural resource values. Approximately 30-40 candidates per site received a certificate of participation. (Participants list/agenda has been requested as of April 96)

## Informal Training

Environmentally sensitive informal training has been conducted by the Newfoundland Forest Service, both Paper Company Operations and Contractors. They include examples such as:

- contractors acquiring the services of company and crown officials on a individualized company by company basis to come in and meet with the workers to explain company and environmental policy regulations, etc. (i.e. Greg Mitchell as per interview).
- training conducted for workers taking part in stand reclamation (SR) projects. This training was usually conducted at the development association office where the project was to be carried out and involved the forestry department providing relevant information to the workers who would be taking part in cutting the blocks of the SR project. The employees were made aware of cutting regulations, environmental regulations and purpose of the SR in general. (i.e. District 14).

Training has also been conducted by the Sawmilling Association for Newfoundland & Labrador. An example would include the Sawyer Training Course which was transferred from the Maritime Forest Ranger School (Continuing Education) in Fredericton New Brunswick.

The Heavy Equipment Operator Programs at many college locations are conducting some environmentally sensitive training for student operators. These training programs could provide an opportunity for expansion of current curriculum involving the industry and partners to develop a more comprehensive environmentally sensitive training component that can meet the needs of the changing environmental regulations, guidelines and policies set by the government, the industry and the company.

#### **TRAINING INITIATIVES TO DATE: INDIRECTLY ENVIRONMENTALLY SENSITIVE**

##### **FYSTCP:**

The most relevant example of formalized training for Newfoundland would be the "Forestry Youth Silviculture and Certification Program (FYSTCP)". This program had three equal members under the heading of the "Newfoundland and Labrador Forestry Training Association (NLFTA)." The members were Abitibi-Price Inc., Corner Brook Pulp and Paper Ltd. and the Newfoundland Forest Service. The program involved 278 graduates aged 18 -25 years that were physically fit with a grade 9 education or higher. This program was a two-year, two phase course with an "institutional classroom" phase and an on-site job training phase. Skills included pre-commercial thinning, spacing, saw operation, saw maintenance, cutting techniques, safety techniques, crop tree selection, site-clearing techniques, tree-planting methods for bereroot and container stock as well as tree acre, storage, and distribution. Candidates were required to thin up to 40 hectares, harvest one hectare and plant 5 hectares. (See attached list of graduates Appendix II) Additional information is included in the "Compendium of Existing Training and Certification Programs for Silviculture and Forest Workers in Canada, National Forest Strategy" by Canadian Forestry Service for The Canadian Council of Forest Ministers, 1994.

### **Provincial Scalers Course**

There are approximately 92 licensed scalers working with the Newfoundland Forest Service, 206 that are non-departmental commercial and 8 temporary as of 1995. This program is presently conducted on an as needed basis, but has been incorporated with full certification into the Forest Resources Technology Program at Westviking College Campus in Corner Brook. (statistics compliments of Chief Scaler/NFS) Note: Scalers have the most control of woodlands operations.

### **Basic Fire Fighters Course**

A Basic Fire Fighters Course has been conducted by local staff in District 14 for approximately 30 casual employees (names available on request) stressing the fire behaviour and safety component as well as environmental concerns. This training was conducted in the spring of 1995 as the result of preparation for the ongoing "Prescribed Burn Program" and the need for properly trained staff for mop-up operations.

### **Pesticide Applicators Course**

Pesticide Applicators Courses conducted for Abitibi-Price Inc. and Corner Brook Pulp and Paper Ltd., the Newfoundland Forest Service, Forestry Contractors and others. (Statistics requested April 96)

### **Arboriculture Theory, Technique & Practice**

Arboriculture Theory, Technique and Practice was conducted for Newfoundland Power (Fall 1994) and sponsored jointly by the Nautical Institute of Port Hawkesbury, Nova Scotia and CFES. A tree felling certification component of this course was completed by two CFES participating instructors in an on the job "train the trainer" component. There were 10 participants from Newfoundland Power. The Nautical Institute was involved because Nova Scotia has designed through the efforts of the Occupational Health and Safety Division, Nova Scotia Department of Labour and the Nova Scotia Forest Products Association, a manual titled "The Forest Professional: A Code of Practice for the Stewards of Tomorrow's Forests". This manual is one of the primary documents used for training workers in the forest industry in Nova Scotia and the standardized code of practice describing practical methods and procedures for good forest techniques.

### **Forestry Worker Training for Native Band Members**

The Native Band Councils in both Glenwood and Conne River received Forestry Worker Training Programs delivered by Centrac in Glenwood and Veitch & Associates in Conne River. (Statistics/specific course outlines requested April 96)

## **TAGS Training for Eastern College**

Eastern College is presently conducting silviculture training as part of a TAGS initiative. Training is being conducted by Clarence Belbin. (Statistics/specific course outlines requested April 96)

## **FORMAL TECHNICAL**

Various forms of formal technical courses and train the trainer programs are being implemented on an ongoing basis. Some past examples would include:

- Corner Brook Pulp & Paper's "Mechanical Harvester Train the Trainer Program" and "Thinning Program" (statistics/course components requested April 96)
- the Newfoundland Forest Service/Federal Forestry Site Classification Course for Inventory workers (inventory in-house training only)
- CFES training for GIS and GPS. These courses vary from introductory to advanced and specialized. (participants/course titles on CFES file)

## **Informal Training**

Various forms of informal training have been conducted by the Newfoundland Forest Service, both Company Operations and Contractors. They include examples such as:

- informal training by the NFS through job-readiness programs, etc. delivered through the college system. Usually the training ranges from one hour lectures to one day seminars and is designed by the college as the result of a specific need i.e. resource related; informational, educational, clarification on forest policy, burning, etc.
- both Abitibi-Price and Corner Brook Pulp and Paper have conducted informal training for their front line forest workers on an ongoing basis and have made great steps towards professionalizing the contractor and unionized forest worker.

## **Public Relations - Information Sharing**

An example of a formal/informal public relations type of training initiative usually occurs in the spring of the year prior to the operating season. All contractors and key individuals are invited to a forum type gathering to discuss the upcoming operating year. This activity can foster relations between the company, crown, woods workers, contractors and other relevant officials in addition to providing an opportunity to get special messages out in regards to safety, operating, environmental, etc.

## **Private Woodlot Management Program**

More recently District Ecosystem Managers are required to hold public meetings prior to the approval of their 5 year operating plan. The meetings are held in the areas affected by the 5 year operating plan and ensures public participation and the chance to deal with issues at a grass-roots level. A resource manual is given to the owner to assist in the education process. The document, "Successful Forestry: A Guide To Private Forest Management", was developed by the Canadian Forestry Service and the Government of Canada and provides information on valuable forest practices for the woodlot owner.

## **COMMENTS OF INDIVIDUALS SURVEYED**

The following comments were made by industry representatives and other individuals who have expressed interest in a certification and/or training process for the forest worker:

- would like to ensure employees are trained properly, would like to see provincial standardization including contractor certification...
- we need to ensure we have a good program for the province, we have worked with Ontario and may share some ideas here, long overdue...
- recently we have published a manual for our woods department, we are very interested and feel that we can do this in-province...
- feel that we are adequately trained and we may be able to use the program we are using as a model, would like to see grand fathering of trained employees...
- is worried about certification versus training, what about the National Certification Program...
- this is long overdue, we are very interested in professionalizing the logger...
- I am very interested in the certification/training process and see similar meetings in Maine; Certification of Woodworkers as an item on their agenda..
- include environmental issues...
- I have been interested for the past number of years working as a contractor and would like to eventually see pesticide/herbicide code of practice as well...
- interested in attending and would like to see Resource Officers certified if possible...
- feel that we should bring someone in from outside as this would add more credibility to our initiative....

## CONCLUSION

Newfoundland and Labrador does not have a standardized code of practice manual or training program for the forest worker. Almost everyone is doing something in regards to training, but a standardized approach may be beneficial. There is a great potential to deliver a training program and virtually encompass all of the industries/individuals connected with forest work in any way. (See Appendix III, Apprenticeship Training & Compulsory Certification, Hibbs, Prospects; Volume 2, #3, Fall 96)

Presently there are problems with the documentation process. While Newfoundland has conducted a comparable amount of formal and informal training as other provinces, we have failed to take advantage of a comprehensive "train the trainer approach" to accreditate, standardize and package.

We now have an opportunity, the resources and the technical expertise to document and package a standardized series of short course that can be delivered to forest workers within and outside of this province. This training and or certification program would ensure safety as well as practical techniques and procedures for any type of forest work. This may eventually include guides, adventure tourism operators, outfitters, trail workers and domestic cutters.

**APPENDIX I**

**ROUNDWOOD HARVESTING CONTRACTORS  
FOR  
NEWFOUNDLAND & LABRADOR 1996**

**APPENDIX II**

**FORESTRY YOUTH TRAINING  
COOPERATION AGREEMENT GRADUATES**

**APPENDIX III**

**APPRENTICESHIP AND COMPULSORY CERTIFICATION**