

MOUNTAIN PINE BEETLE PROGRAM

PROGRAM OUTLINE



1. Definitions:

- (i) “Applicant” means an applicant to FRIAA who applies for MPB Funds by submitting a Proposal;
- (ii) “Approval” means the written approval of a Proposal issued by FRIAA, including the terms set by FRIAA to implement an approved Proposal;
- (iii) “Association” or “FRIAA” means the Forest Resource Improvement Association of Alberta;
- (iv) “Department” means Her Majesty the Queen in Right of Alberta as Represented by the Minister of Agriculture and Forestry;
- (v) “Member” means a member of FRIAA.

2. Project Overview

The purpose of the FRIAA Mountain Pine Beetle (MPB) Program is to protect Alberta’s forest resource by supporting Alberta Agriculture and Forestry’s efforts in controlling, suppressing and eradicating MPB.

The Program permits integration of a massive effort by the Government of Alberta to control MPB with those of forest industry partners. The ultimate goal of the Program is to keep Alberta’s forests healthy and reduce the harm caused by a potentially devastating infestation.

Successful applicants will follow an application/approval process set out by FRIAA. Further details and program guidelines can be found at www.friaa.ab.ca.

Eligible Activities as referred to in the body of [the] Agreement means activities that meet the purposes of the Project and are not the responsibility of a timber disposition holder and includes, but is not limited to, the following summary of categories:

- (i) Aggregation pheromone use – long distance dispersal monitoring to detect MPB in previously un-infested areas, containment baiting to concentrate MPB prior to control, and monitoring and containing MPB in company log yards to prevent damage to pine trees in adjacent forests.
- (ii) Detection surveys – aerial and ground surveys to determine where the beetle are currently active and where control activities may be required.
- (iii) Single tree control – destroying beetle larvae in infested trees before they can finish their life cycle and spread to other trees.
- (iv) Protection of seed orchards and progeny test sites – provides localized protection to high-value pine trees.
- (v) Regional planning initiatives – helps forest companies work together to determine what steps need to be taken in the future to mitigate the impact of MPB.
- (vi) Such other activities as may from time to time be agreed to in writing by the Department and FRIAA.

Activities that are **not** an Eligible Activity include:

- (i) Facility construction, improvement or operations,
- (ii) Product research and development,
- (iii) Road construction, repair and maintenance,

- (iv) The purchase of any capital assets, or
- (v) A project carried out prior to project approval unless, in FRIAA's sole opinion, it is justified for operational circumstances.

3. Eligible Activities

The following table provides further detail on Eligible Activities, as defined in Section 2, and provides guidance in regards to reasonable costs for these activities based on FRIAA's past experience and recent competitive bids received by the Department. This information is intended to provide a framework for development and review of proposed projects and is not intended to identify fixed costs for activities.

In all cases, the actual reimbursement for services will be according to the actual documented costs of providing those services. Reimbursement will be based on third party invoices, or where work is carried out in-house, applicable time sheets/cards indicating time spent on the project and wage rates charged to the project. In any cases where anticipated costs exceed the cost guidelines (on a metric unit basis), the rationale for these higher costs must be provided in the project proposal and must be pre-approved by FRIAA.

The "cost unit" column of this table is intended to serve as a reminder that costs guides based on other units are for guidance only and do not constitute fixed costs for purposes of billing. The "metric units" and "cost guide" columns are provided to demonstrate linkages between units actually tracked and productivity of those units in relation to historical cost guides and/or costs of final reports.

SCOPE OF ELIGIBLE ACTIVITIES AND COST/FUNDING GUIDE

Activity/Sub-activity	Sub-activity Detail	Metrics Unit	Cost Unit	Cost Guide
1. AGGREGATION PHEROMONE USE				
Long Distance Dispersal Monitoring				
Proposal for FRIAA	1 proposal/project	plan	man-day*	\$500.00/plan
2-component tree bait	1 site of 3 baited trees/township	bait	bait	\$6.06/bait
Bait set up	approx. 7 sites/day	site	man-day*	\$120.00/site
Bait removal	approx. 7 sites/day	site	man-day*	\$100.00/site
Ground survey (modified concentric)	up to 75 m around bait station with attacked trees	hectare	man-day* (or sites)	\$500.00/site
Single tree control	mass attack trees (>40 hits/tree)	# trees	man-day* (or tree)	\$115.00/tree
Final outcomes report to FRIAA	1 report to FRIAA, data to AF	project	man-day*	\$500.00/report
Containment Baiting				

Proposal for FRIAA	1 proposal/project	plan	man-day*	\$500.00/plan
2-component tree bait	1 bait/season, stapled to tree 2 meters above ground	bait	bait	\$6.06/bait
Bait set up	1 bait 50 x 50 m grid (about 4 baits/hectare)	hectare	man-day*	\$40.00/ha
Bait removal	all of approx. 4 baits/hectare	hectare	man-day*	\$25.00/ha
Final outcomes report to FRIAA	1/project	plan	man-day*	\$500.00/man- day
Log Yard Management				
Proposal to FRIAA	1 proposal/project	plan	man-day*	\$500.00/plan
Lindgren 12/16 funnel trap	3 traps/stand	trap	trap	\$75.00/trap
Trap 3-component lure	1 lure/season	lure	lure	\$7.09/lure
Trap terpinoline lure	1 terpinoline lure change/season	lure	lure	\$2.89/lure
Trap stand	3 traps 1 m apart 6' above the ground	stand	stand	\$70.00/stand
Set up, monitor, remove <u>mill yard</u> traps	stands 50 m apart, 75 m from log deck, check up to 16 times/season	trap	man-day*	\$41.00/trap/ season
Set up, monitor, remove <u>satellite yard</u> traps	stands 50 m apart, 75 m from log deck, check up to 16 times/season	trap	man-day*	\$69.00/trap/ season
Ground survey of identified adjacent stands	walk through assessment up to 100 m from traps (once/season)	hectare	man-day*	market rate
Single tree control	cut, buck, burn attacked trees (>40 hits/tree)	# trees	tree or (man-day*)	\$115.00/tree
Final outcomes report to FRIAA	1/project	plan	man-day*	\$500.00/man- day
2. DETECTION SURVEYS				
Aerial Surveys				
Planning and data management	1/project	plan	man-day*	\$800.00/man- day
Aerial Photography for area	submit for review in project proposal	photo	photo	market rate
Aircraft rental	submit for review in project proposal	hour	hour	market rate

Survey manpower (2 person)	navigator, tally person	linear km (or ha)	man-day*	market rate
Supervision (of contract or staff surveyors)	about 20% manpower costs		man-day*	market rate
Final outcomes report to FRIAA	total # and location attacked trees	project	man-day*	\$800.00/report
Ground Surveys (concentric, r:value, green:red ratio)				
Proposal to FRIAA	1/project	plan	man-day*	\$800.00/plan
Survey manpower	50 m circle plots (2 Ha) @ initially one per location	hectare	man-day* (or plot)	\$345.00/plot
Quality inspection (man-day)	minimum 15% of sites		man-day*	market rate
Supervision (of contract or staff surveyors)	about 20% manpower costs		man-day*	market rate
Aircraft rental	project		\$/hour	market rate
Final outcomes report to FRIAA	1/project	plan	man-day*	\$500.00/man-day
3. SINGLE TREE CONTROL				
Proposal to FRIAA	1/project	plan	man-day*	\$800.00/man-day
Ground treatments	cut, buck, burn, or chip	# trees	tree or (man-day)	\$115.00/tree
Quality inspection	15% of surveyed sites	site	man-day*	market rate
Aerial Scanning	# & location of sites visited	hour	\$/hour	market rate
Final Outcomes Report to FRIAA	1/project	plan	man-day*	\$500.00/man-day
4. PROTECTION - GENETIC TRIALS, ORCHARDS, RESEARCH PLOTS				
Proposal to FRIAA	1/project	plan	man-day*	\$500.00/man-day
Verbenone pouches	1 pouch per 15 x 15 m grid (70 pouches/ha)	pouch	pouch	\$9.40/pouch
Pouch set up and removal <u>orchard</u>	attach north side tree 15 x 15 m grid	pouch	man-day*	\$1.40/pouch
Pouch set up and removal <u>trial sites</u>	attach north side tree 15 x 15 m grid	pouch	man-day*	\$3.50/pouch

2-component tree bait	1/season	bait	bait	\$6.06/bait
Lindgren 12/16 funnel trap	1 - 4 traps/orchard, >50 m from orchard boundary	trap	trap	\$75.00/trap
Trap 3-component lure	1/season	lure	lure	\$7.09/lure
Trap terpinoline lure	1 change/season	lure	lure	\$2.89/lure
Trap stand	3 traps 1 m apart 6' above ground	stand	stand	\$70.00/stand
Set up, monitor, removal of traps	monitor up to 16 times/season	trap	man-day*	\$41.00/trap
Insecticide (Sevin)	2% solution applied to each tree	litres	\$/litre	\$19.00/litre
Insecticide application	apply to lower 2.5 m of each tree	# trees	tree or man-day*	\$6.00/tree
Monitoring/replacement of PSPs/ISPs			man-day*	\$500.00/man-day
Final outcomes report to FRIAA	1/project	plan	man-day*	\$500.00/man-day
5. REGIONAL PLANNING INITIATIVES				
Activities as approved by FRIAA	project	plan	man-day*	\$500.00/man-day

* Cost per man-day are “loaded” costs including vehicle and field equipment. All costs at market value as determined by level of staff experience required and distance to staging point with rationale provided in the proposal.

Note: market value of man-day costs in isolation of expected productivity for those man-days does not provide much guidance on expected costs; comparison to “cost guide” is intended to provide linkages to historic program costs.