

Harvesting Priorities at the Alex Fraser Research Forest

Timber harvesting is an important activity at the Research Forests. It provides opportunities for teaching and research, and it pays the bills.

In general, harvesting efforts at the Alex Fraser Research Forest are dictated by natural forces. In order to protect the forest resources and manage the timber most effectively, we harvest by the following priorities:

1. infested by insects
2. dead or dying
3. at risk of infestation by insects
4. affected by disease
5. declining vigour
6. healthy and vigorous

The most significant pest problem confronting the Research Forest continues to be bark beetles. Beetle populations cycle between endemic and epidemic levels through time, and the age and species structure of the Research Forest is conducive to bark beetle outbreaks.

Currently mountain pine beetle is increasing to epidemic conditions.

Staff are finding approximately five trees attacked this year for each tree killed last year.

Strategies for management of mountain pine beetle focus on maintaining a low population, by:

Prevention by harvesting stands of highest hazard first according to species composition and age of a stand, and by rationalizing and prioritizing access development to high hazard areas; and

Suppression during periods of high beetle pressure, by harvesting infested areas while the beetles are still under the bark, in conjunction with pheromone baiting.

Hazard for mountain pine beetle attack depends upon the amount of lodgepole pine in a stand, and its age. The figure above shows stands at Gavin Lake that are at risk of attack.

Intensive management of bark beetles requires vigilant detection and aggressive harvesting to control the spread during periods of high beetle pressure. Although prevention is the best management option, it takes a long time. Since 1989, approximately 30% of the timber harvested from the Research Forest has come directly from bark beetle control activities on a single-tree salvage basis.

Harvesting bark beetle infested trees takes two forms:

- single-tree salvage of small groups of infested trees throughout the Research Forest; and
- development of small cut blocks under Silviculture Prescriptions, which are baited with pheromones.

Because the allowable harvest on the Research Forest is relatively small, we are trying hard not to let an epidemic of mountain pine beetles develop. If control fails, then the impact on the non-timber resources will be significant, and the dislocation of harvesting programs will have severe financial ramifications. We will continue to be vigilant.

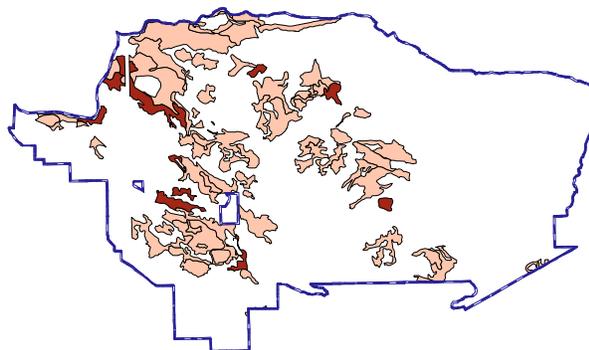


Figure 1: The Gavin Lake Block (6,315 ha) showing forest cover types with lodgepole pine more than 80 years old.