

Arrowhead Bark Beetle Control Plan For 2014

Based on discussions with Dave Wakarchuk the President of Synergy Semiochemicals Corp. (makers of the MCH packs) and Roy Mask, Forest Service Entomologist, the following is the plan and expenses for controlling bark beetles at Arrowhead in 2014.

Current Situation

Douglas fir beetles

About 40 trees died from bark beetle attack near the end of Crest in the spring of 2013. About 15 trees also died near the end of Rim. There are smaller groups of 2 to 4 trees in a few other areas of Arrowhead. Some of these trees were removed in early spring to remove the beetles from Arrowhead. Because of the short time between the trees dying and the beetles flying, many of the trees were not removed before the beetle flight occurred. No additional trees have died this fall, which is unusual, and that may be because of the wet late summer and fall. By the end of June 2014 we will have a better idea of beetle effects on Douglas fir.

Spruce beetles

The spruce beetle situation continues to evolve on the Alpine Plateau. Larger pockets of spruce beetle activity have continued to be discovered on Forest Service and BLM land as the summer progressed. The Willow Salvage Sale and the Long Draw Sale are focused on the spruce beetle but there are many acres of Forest Service land where these management activities cannot occur. There is some thought in the Forest Service that most of the spruce on the Alpine Plateau will be dead within 5 years.

The challenge will be to make Arrowhead the exception to that prediction.

The following actions are planned to deal with the beetle problem:

- 1) Continue to remove standing Douglas fir as they die and before beetles fly. Remove spruce that show indications of significant beetle activity. Current plans are to remove most trees with no direct cost. A few trees will need to be removed using Arrowhead equipment and operator time.
- 2) Monitor spruce blowdown through August 2014 that will act as trap trees. These trap trees will attract spruce beetles at up to 10 times the rate of standing trees and will then be removed to take beetles with them.
- 3) Because of the current low level of spruce beetles at Arrowhead (6 trees identified in 2013) no spraying will be recommended in 2014. This will continue to be an option in future years for the protection of individual high value trees, not for spraying all the spruce at Arrowhead.
- 4) There is one Arrowhead owner who has a small orchard near Grand Junction that is considering spraying of some individual trees on his Arrowhead property. Consultation will continue with this owner into next spring and summer.
- 5) Continue to install MCH packets on both individual property and common land. Approximately 11,000 were put up last year. Plans are for about a 10% increase

in MCH packs in 2014. This would result in 2000 on common land (an increase of 300), 800 on the adjacent Gotcher Ranch, 200 on Will and Lucia's property above Flint Lakes, and about 9000 on and around individual Arrowhead lots. There is increasing evidence that MCH packets are more effective on spruce beetles than previously thought

- 6) Continue the Douglas fir beetle trapping with emphasis on areas with high tree mortality. (5 traps, a reduction from 7 traps)
- 7) (THIS IS THE MAJOR PROGRAM CHANGE) Install 22 spruce beetle traps near major spruce tree concentrations. This action has two objectives. The first is to place the traps about 150 feet from spruce trees in openings or aspen stands to draw the beetles away from the spruce trees. The second objective is to monitor the number and location of spruce beetles in Arrowhead. Hopefully not very many spruce beetles will be caught in traps in 2014 but if the Forest Service predictions are correct that will increase significantly over the next 5 years.
- 8) Continue to encourage mitigation to improve tree vigor and make trees more resistant to beetle attack.

This plan contains no guarantee of success. Some of the ideas mentioned here and other details that I have not included have not been tested by formal research. In order to stay ahead of the spruce beetle problem we need to be willing to stay on the leading edge of ideas that the experts recommend even though they have not been formally researched. Compared to the loss of virtually all of the spruce at Arrowhead or even just the cost of removing those dead trees the increased cost of this recommended program adjustment is minimal.

Direct costs to the AIA

2012 cost for MCH packs, traps and lures	\$2460
2013 cost for MCH packs, traps and lures	\$2126
2014 cost (est) for MCH packs, traps and lures	\$4000

The 2014 estimate includes a one time cost of \$1230 for additional traps. This cost would not reoccur in 2015. If there are any questions or suggestions please contact me.

Bill Conway
Arrowhead Forest Manager