

# Logging Demonstration for Forest Leadership; working together to better achieve common goals

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On February 10, 2015, employees from the Olympic National Forest were invited by Jim H. Bower Logging Company and Interfor Corporation to witness a commercial thinning operation they were conducting on Washington State lands. [Thinning](#) is a method used to accelerate the development of late successional forest habitat in second growth forests, an important management goal on the Olympic National Forest. The objective of the demonstration was to show the capabilities of mechanized logging and share industry perspectives Forest Service timber sales.

Bower indicated that it's a challenge to get young people into logging, a physically demanding and dangerous job, and said that mechanization is important for a viable business. Using machines can be safer, more productive, and increasingly less impactful on the land, but there are some tradeoffs, and Bower would like to see fewer restrictions in Forest Service contracts and administration to accommodate them. For example, he feels that it can be difficult to exactly meet stump height requirements and residual stand damage limits in these contracts.

## Timber Harvest Methods

The observed timber sale, Good Spread Timber Sale, was a ground based thinning from below in a second growth stand with a harvest method based on species diameter, stand relative density, and basal area. Bower expressed a preference for this method (referred to as designation by *prescription* or D x P), stating that it is easier to comply with than harvests designated by *description* (D x D), the method used on most timber sales on the Olympic National Forest.



While D x P may be easier to implement for timber companies, Olympic National Forest scientists prefer the D x D method as it provides a means for implementing complex silvicultural prescriptions intended to create a mosaic of overstory tree densities that better align with federal land management goals in the Pacific Northwest. D x D method is based on tree species, spacing, and diameters at stump height and breast height. While this method requires a bit of practice, it does provide a way for all parties to identify the same cut trees before harvest and verify them after harvest, ensuring a consistent outcome without having to spend limited resources painting hundreds of individual trees in a sale.



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## Equipment Demonstration



Forest managers had a unique opportunity to witness the use of the unique technology used in the Good Spread sale. The equipment included a self-leveling tracked harvester with a directional felling head with a grapple. The machine, equipped with roll over, falling object, and occupant protection systems, is safer than hand falling and, according to Bower, can replace about three to five sawyers.

As forest employees observed this machine zip through trees and nimbly maneuver them through the stand, its advantages were apparent. Its ability to cut trees up to thirty feet away reduces the number skid trails, and the tracks do less rutting than rubber tires. Bower says he puts in the skid trails first then cuts on the way back to the landing allowing the decommissioning of the trails as he goes. The grapple on the head facilitates directional falling, preventing hang ups and minimizing damage to the remaining trees; it also makes it easier to pre-bunch trees than a normal harvester. Other benefits include zero tail swing and adjustable tracks that can get as narrow as ten and a half feet wide, ideal for thinning operations where space is limited. All of these things can help reduce the environmental impacts of logging and increase its productivity, factors that are very important to both the Forest Service and industry professionals.

## Working Together to Achieve Common Goals



Members of the Olympic National Forest leadership team, program managers, and specialists participated in the field trip. They were eager to learn more about the tools used to implement restoration on national forestland and hear first-hand the challenges that operators face in implementing thinning sales. Interactions like these help managers do a better job of planning thinning activities, reducing impacts, and making sales more economical. Working together will

help companies thrive and ensure that our forests are able to meet multiple public values.