Ethnoforestry Field Trials Description:

The ethnoforestry field trials are an approximate 5-acre, small scale study on lands managed by the WA Department of Natural Resources between Forks and La Push, WA. This study uses principles of ethnoforestry, or a people-focused forest management, to address uncertainties around managing for early seral understory habitat, wildlife, community values, and timber together.

Understory plants were installed in rows within a portion of the treatments, along with timber seedlings, to better understand how we may actively promote certain species that have value to local communities, while also growing a healthy timber crop. This can be compared to a control that takes a 'business as usual' approach where only Douglas-fir seedlings are planted at densities being used in the rest of the stand. In addition, three wildlife treatments were implemented to determine the quantity of browse and how that differs between areas, treatments, or species.

A factorial study design is used to test both wildlife and silviculture treatments within 27 experimental units that are each 0.1 acres and surrounded by a buffer on all sides. This resulted in the creation of nine unique treatments.





A description of each treatment is below:

<u>Agroforestry:</u> Understory species planted in rows at ½ m spacing. 180 trees per acre (TPA) of Douglas-fir were planted in between understory rows. Understory plants were strategically not planted adjacent to seedlings to limit competition.

<u>Early Seral Management</u>: Understory species planted in rows at 2m spacing. 180 TPA of Douglas-fir were planted along with 50 TPA of red alder in between understory rows.

Control: 360 TPA of Douglas-fir were planted

Wildlife Fencing: 8-ft wildlife fencing installed around experimental unit.

No Exclosures: Open to all browse. No restrictions.

<u>Treatment of Repellent</u>: The liquid repellent Plantskydd was applied to all understory plants and seedlings in this treatment.

Treatments were implemented in Winter 2021, followed by the first post-treatment measurement in Summer 2021. Monitoring of understory regeneration, planted understory, seedlings, and wildlife cameras will continue going forward.



Information gained from this experiment has been used to inform the <u>Type 3 Watershed</u> <u>Experiment</u>. For more information or to get involved, please contact ONRC Research Scientist Courtney Bobsin at <u>cbobsin@uw.edu</u>.