



# History of Early Stand Silviculture

*DECEMBER 11, 2018*

DON PATTERSON  
STIMSON LUMBER COMPANY



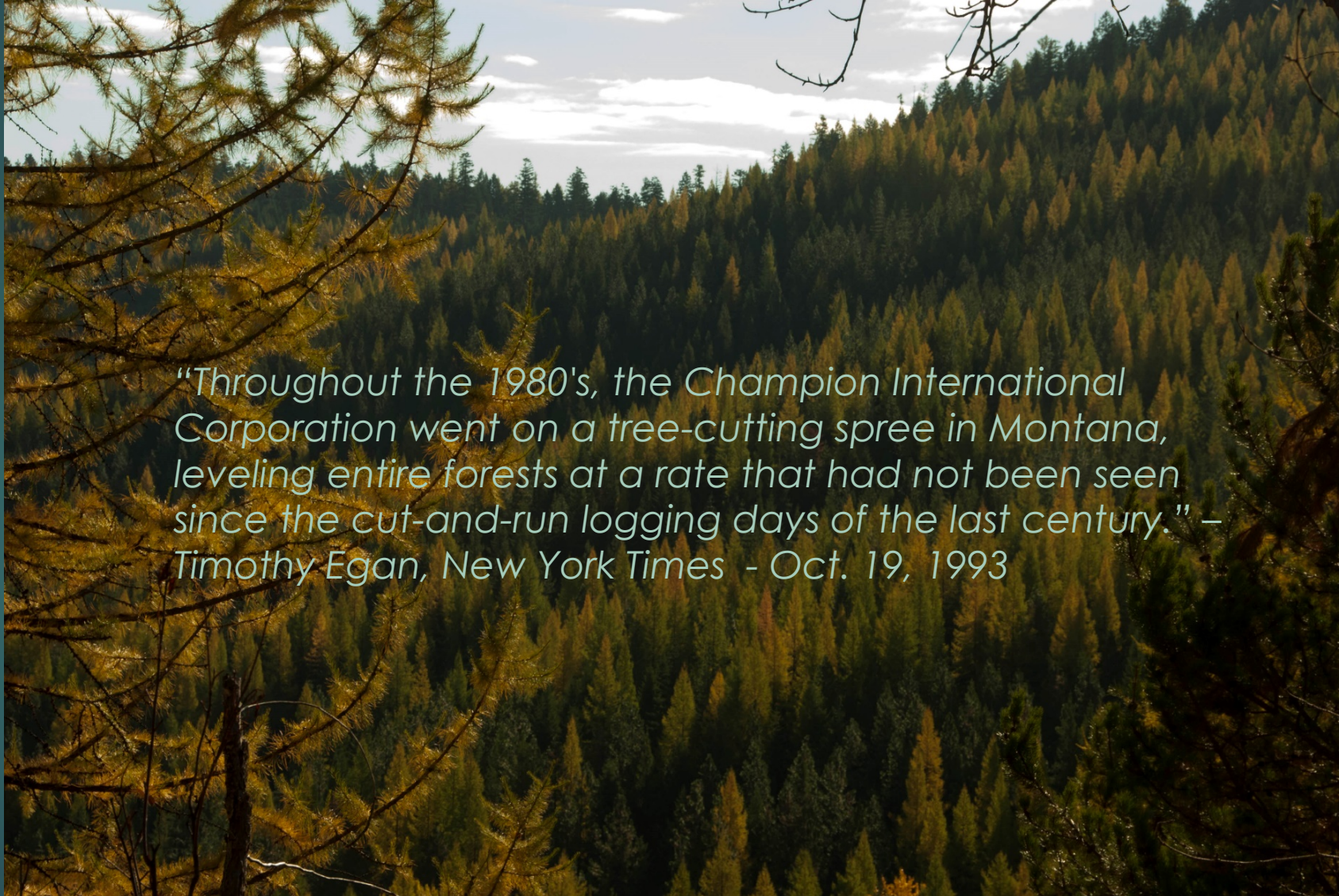
# Inland Forest History

- ▶ Early management (high grading) – 1905 to 1950's.
- ▶ First period of intensive management - 1960 to 1980's.
- ▶ Environmental awareness - 1980 to 2000's.
- ▶ Renewed interest in forest investment - 2000 to present.





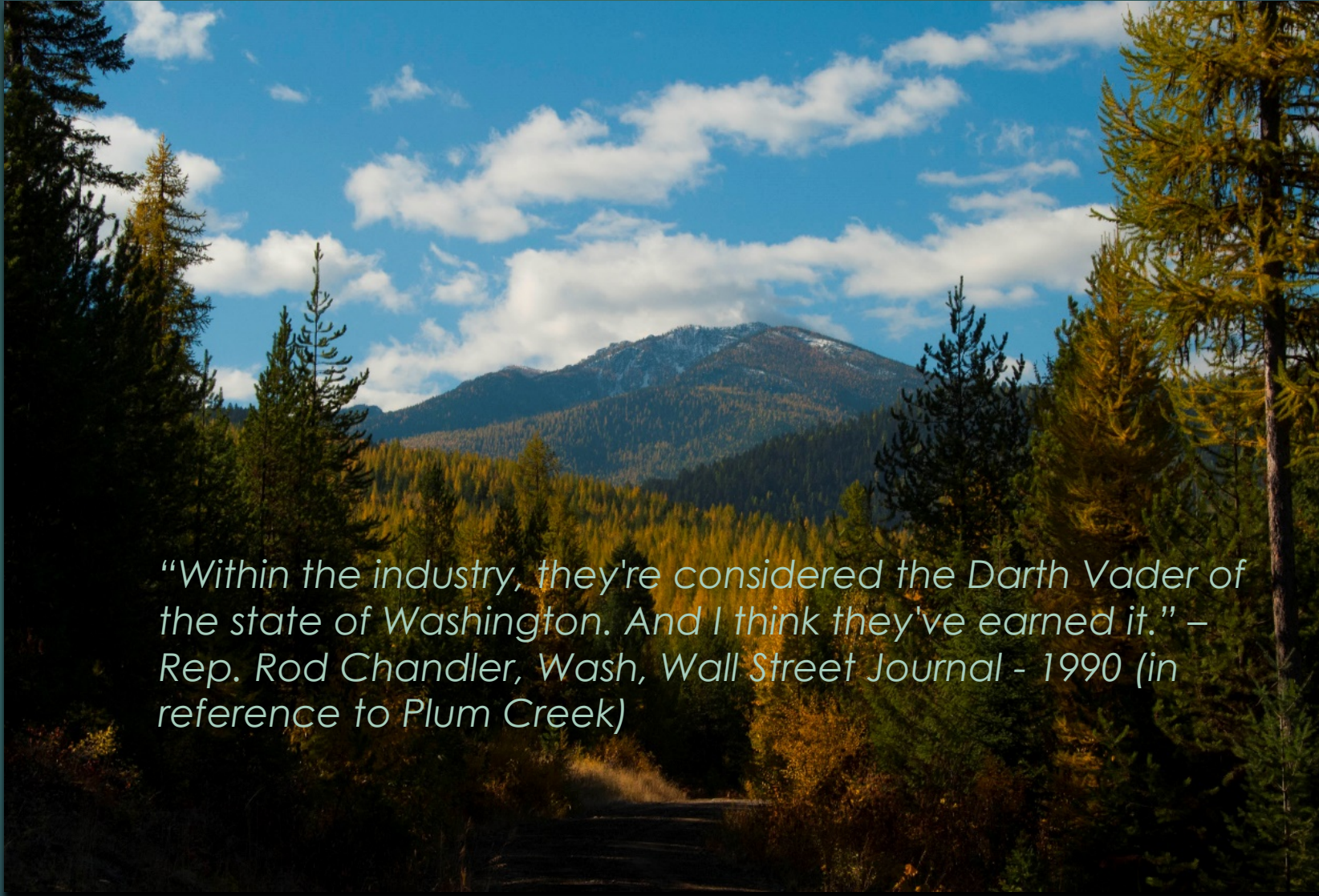
# Environmental Awareness



*“Throughout the 1980's, the Champion International Corporation went on a tree-cutting spree in Montana, leveling entire forests at a rate that had not been seen since the cut-and-run logging days of the last century.” – Timothy Egan, New York Times - Oct. 19, 1993*



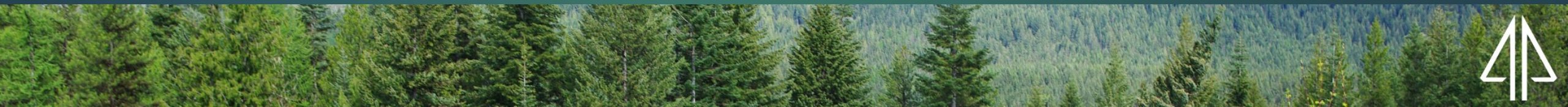
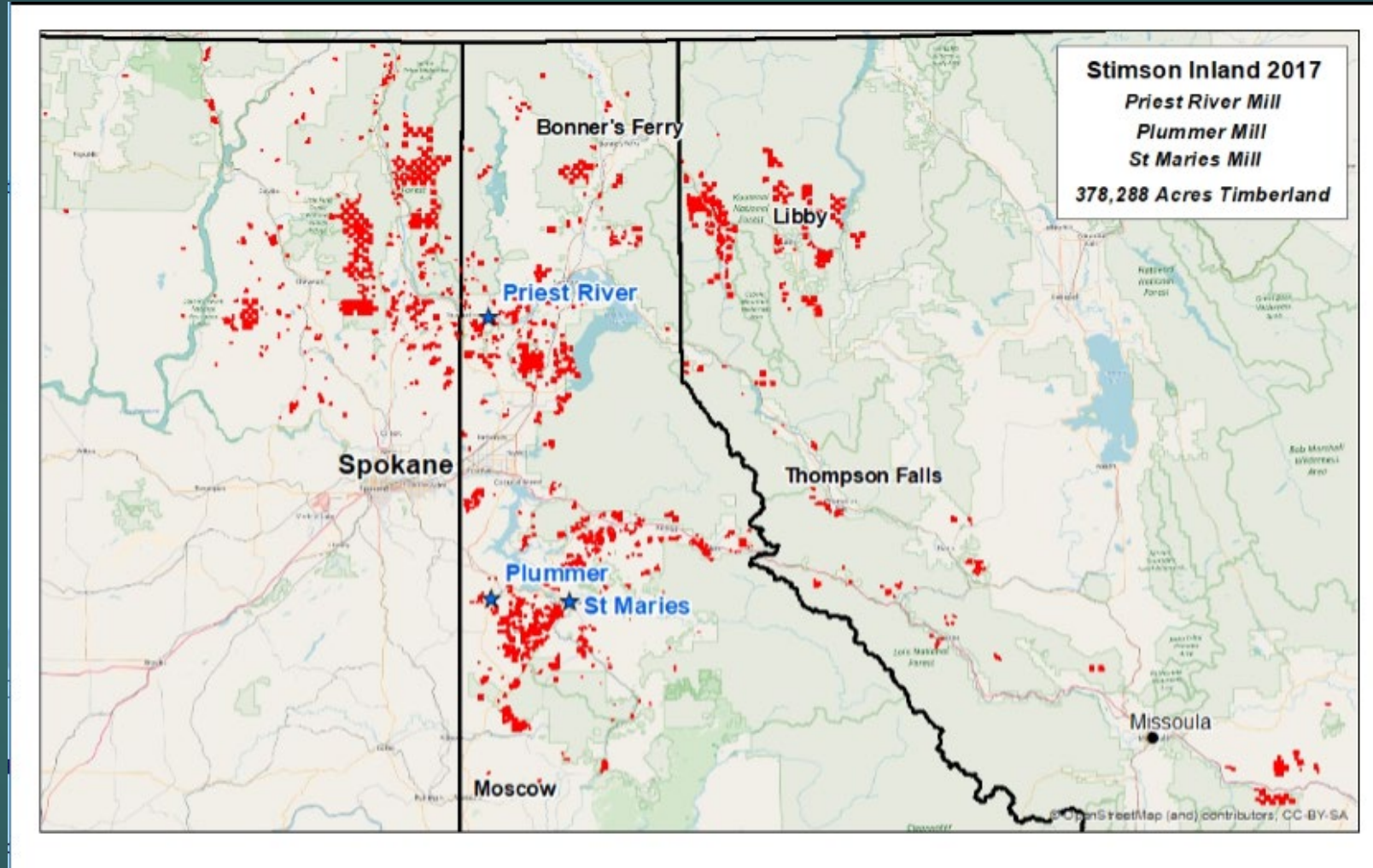
# Environmental Awareness



*“Within the industry, they’re considered the Darth Vader of the state of Washington. And I think they’ve earned it.” – Rep. Rod Chandler, Wash, Wall Street Journal - 1990 (in reference to Plum Creek)*



# Stimson Lumber Current Land Holdings







# Effects of the Decline in Intensive Forestry

- ▶ Most forest managers relied on natural regeneration and inter-planting to achieve desired stocking levels.
- ▶ Decreases in planting programs hit Inland nurseries hard, some were closed permanently.
- ▶ Created a backlog of timberland needing PCT and rehab.
- ▶ Stalled the development of seed orchards in the Inland.
- ▶ Reduced the productivity of vast acres across the Inland.





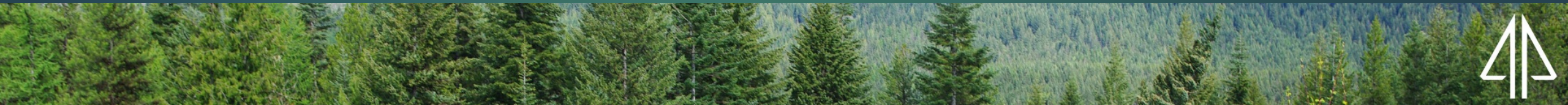
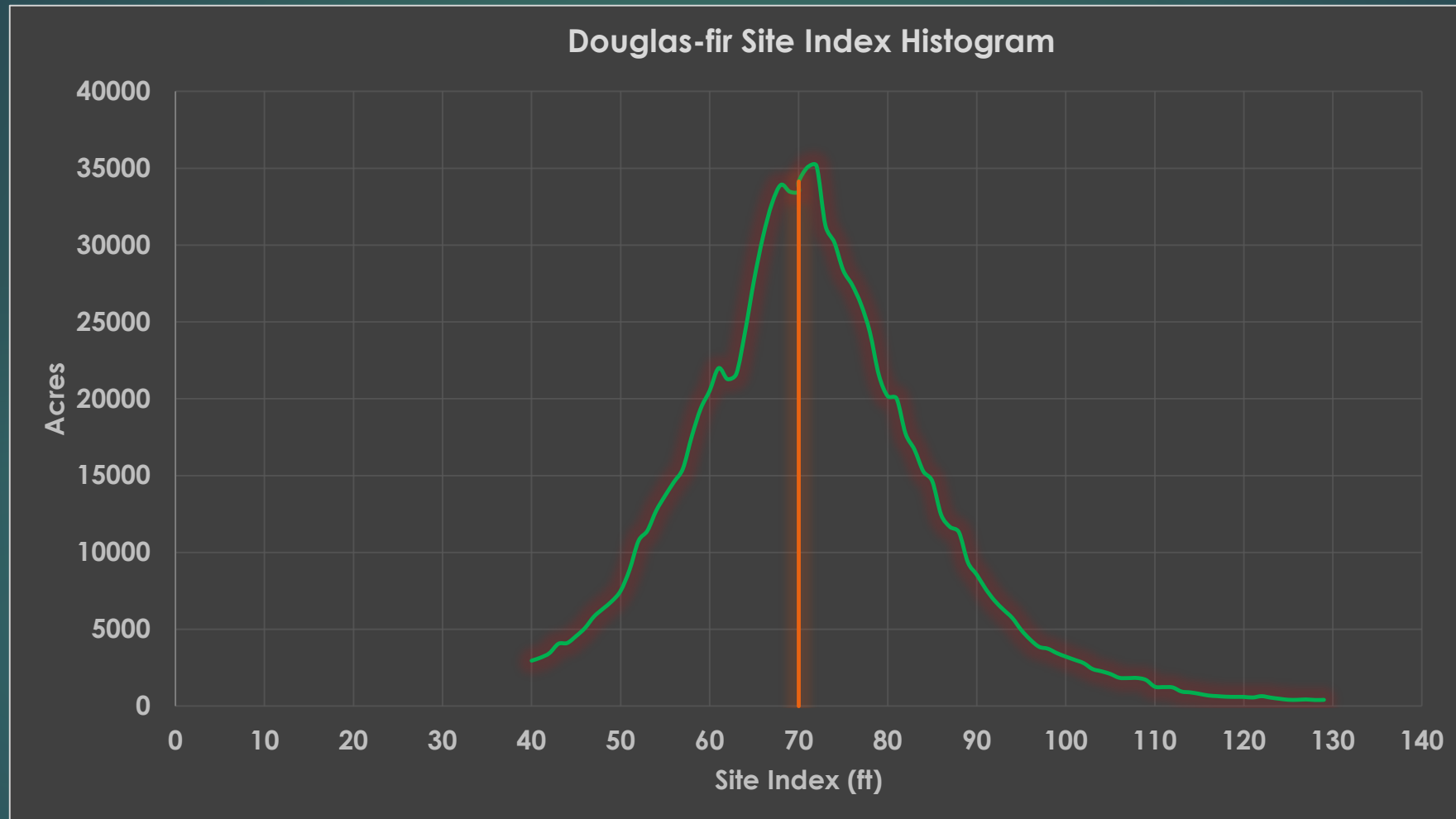
# Seed Orchard Development in the Inland

- ▶ Superior parent trees were selected in the 1960's and 1970's.
- ▶ Crosses were made for several species in the 1970's and 1980's.
- ▶ Progeny tests were created for several species in the 1980's .
- ▶ Although results from the progeny tests were available by the mid-1990's, cooperative seed orchards weren't developed until mid 2000's and later.





# Where does intensive forestry pay?



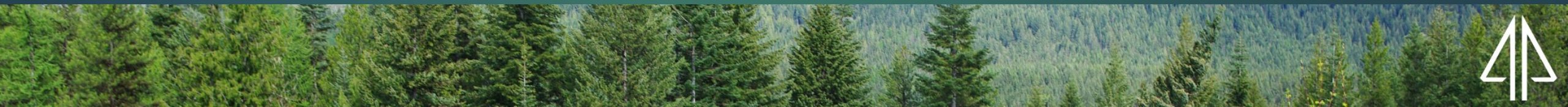
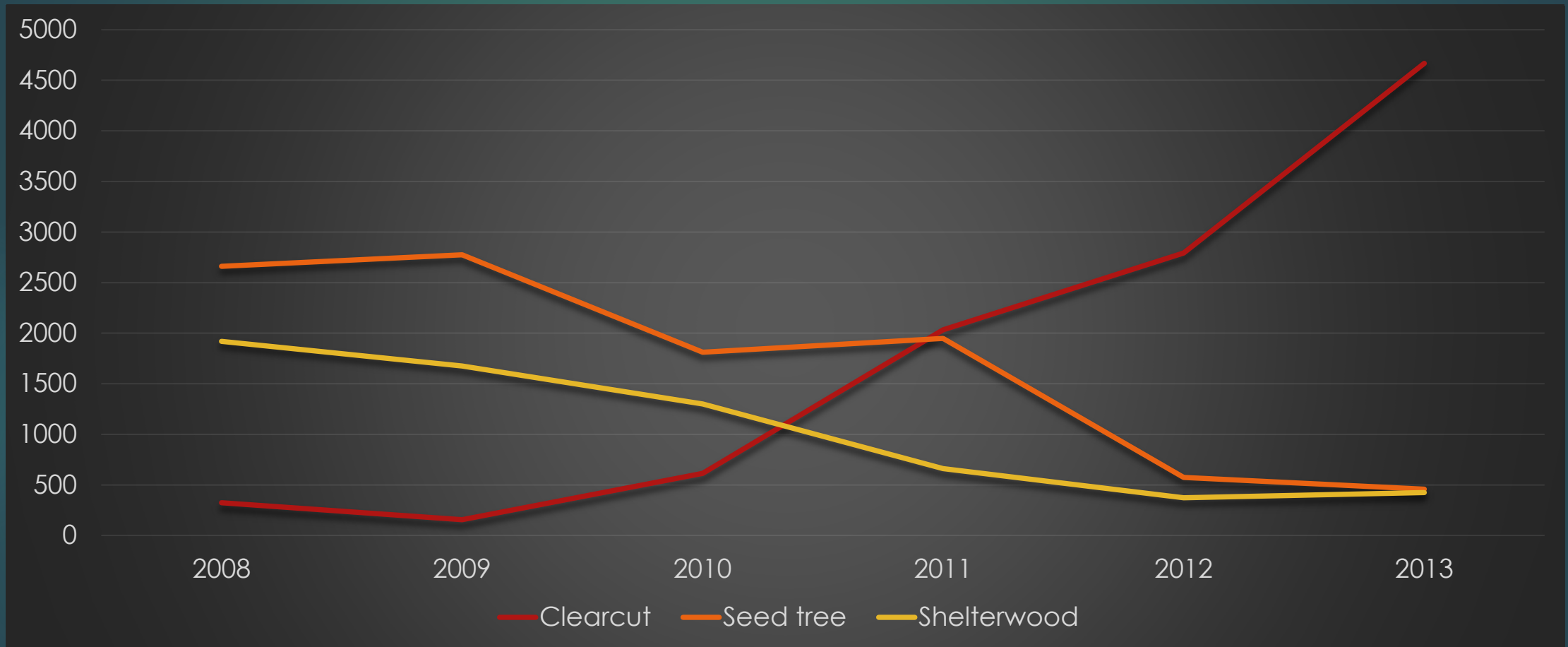
# Economic Evaluation of Silvicultural Systems

- ▶ Stimson evaluated the financial viability of shelterwood, seed tree and clear cutting/planting silvicultural systems on a variety of site types.
- ▶ On higher quality sites clear cutting/planting and seed tree harvests had similar financial performance.
- ▶ Shelterwood harvests were the least financially viable when considering revenue lost by not harvesting the leave trees.
- ▶ Shelterwood leave tree stands experienced little net growth over a decade.
- ▶ Natural regeneration added 10 years to the rotation length vs planting.

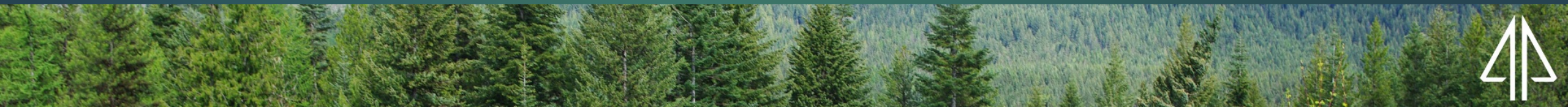
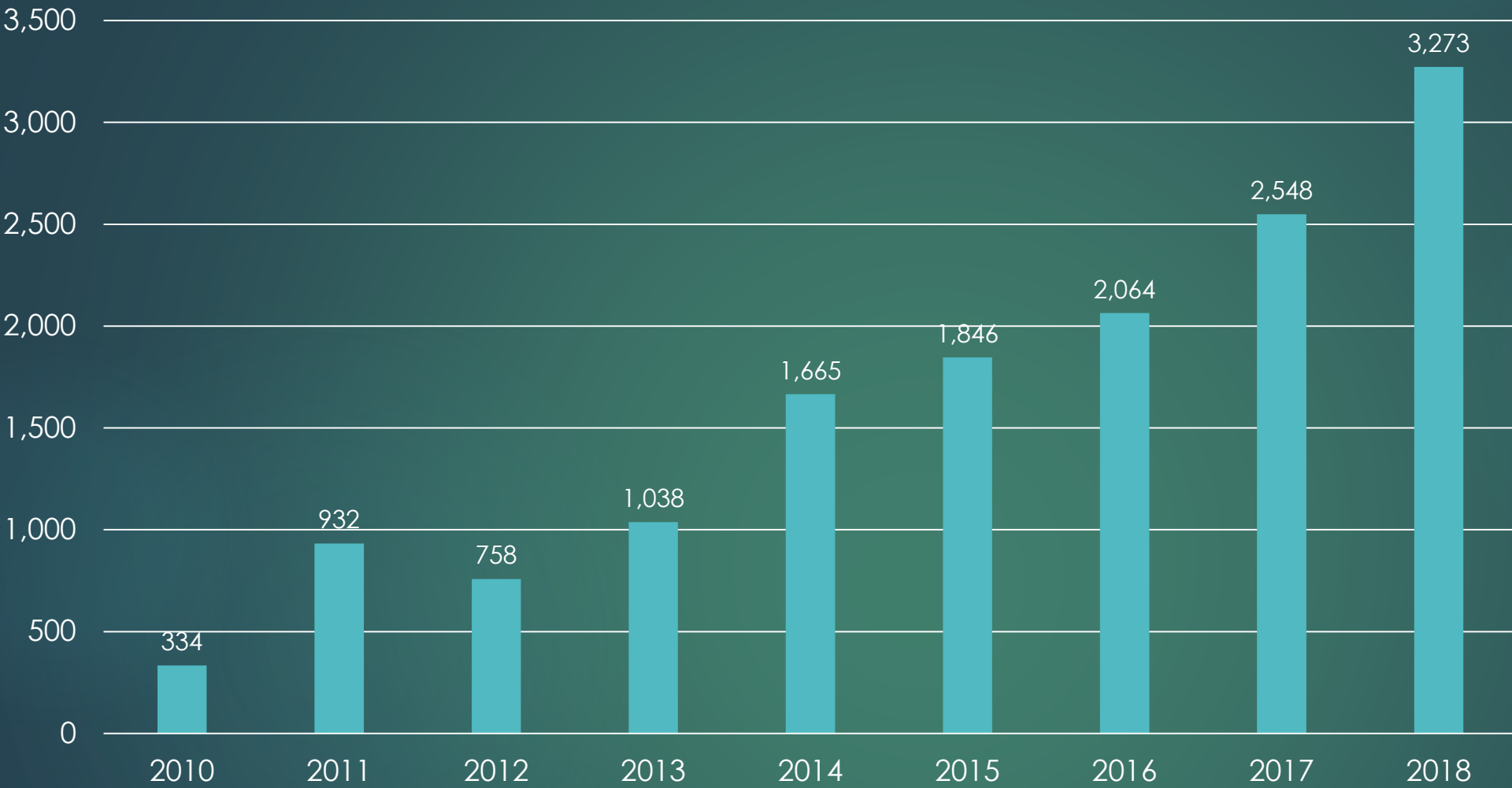




# Harvest Acres by Silvicultural System

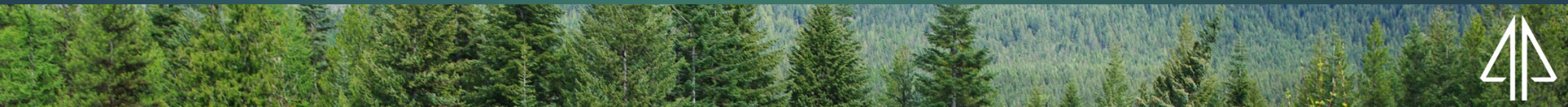
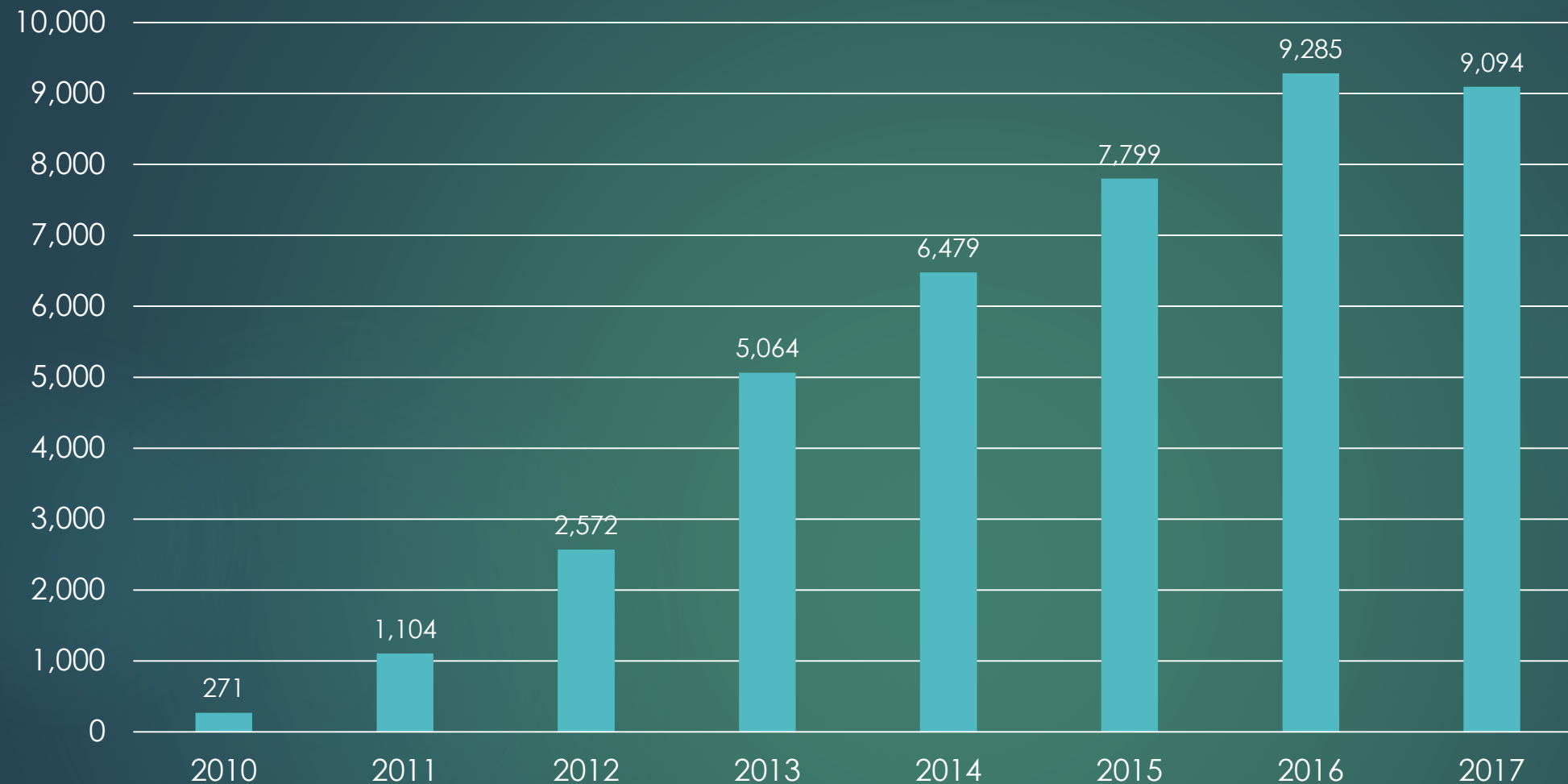


# Seedlings (m) Planted by Year

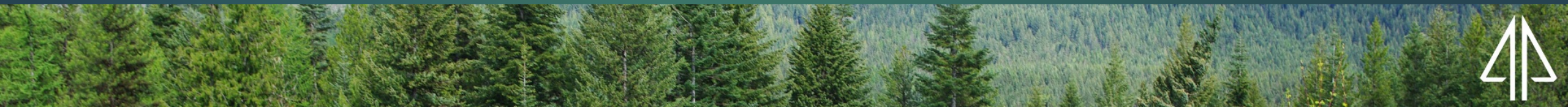
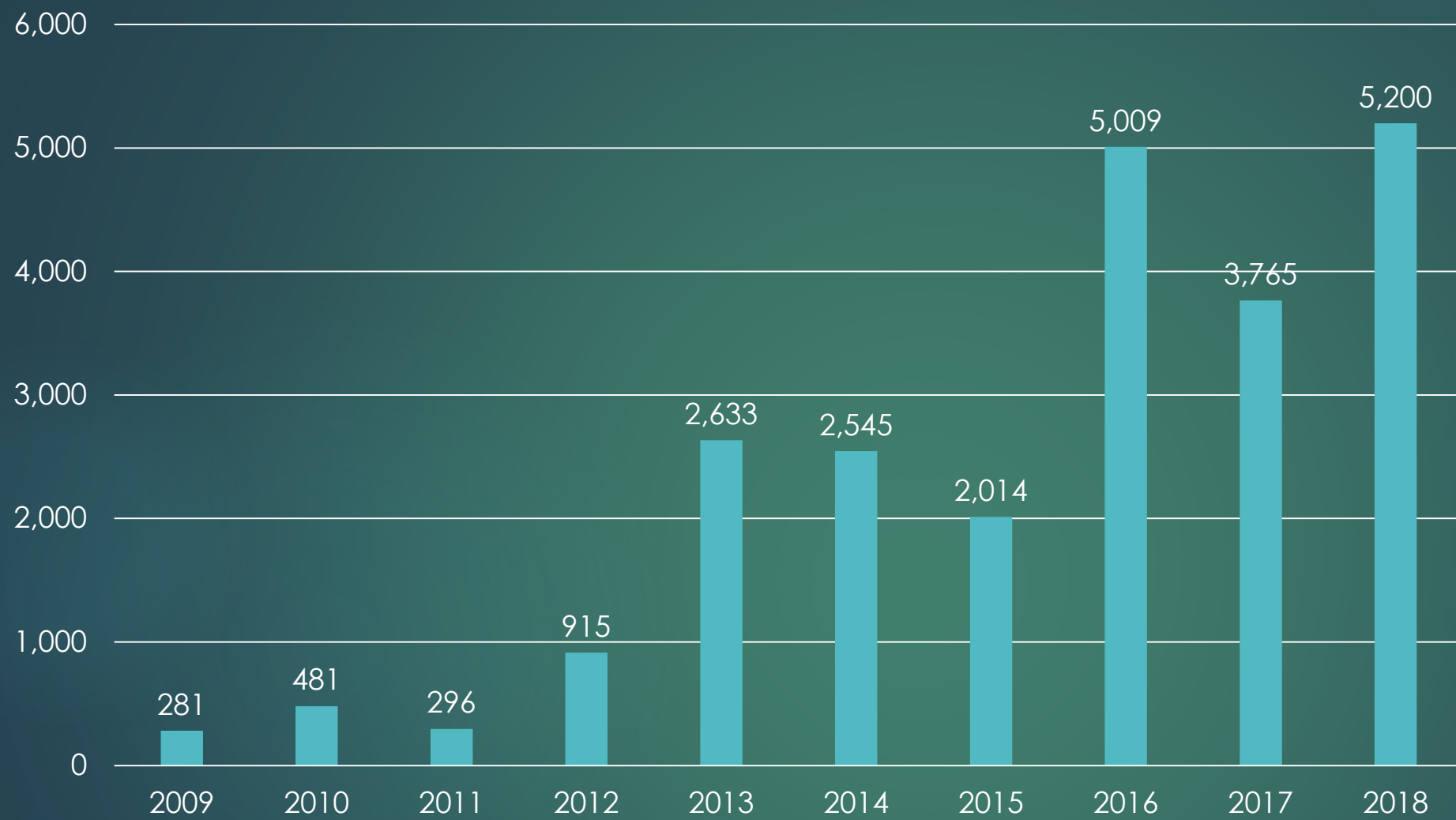




# Herbicide Treated Acres by Year



# Pre-Commercial Thin Acres by Year

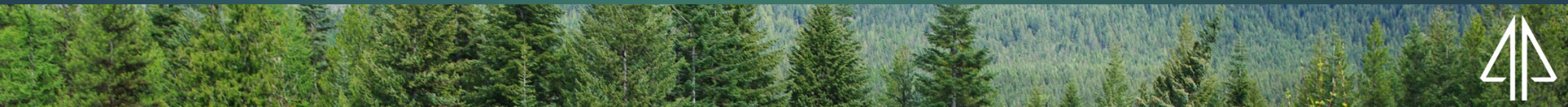
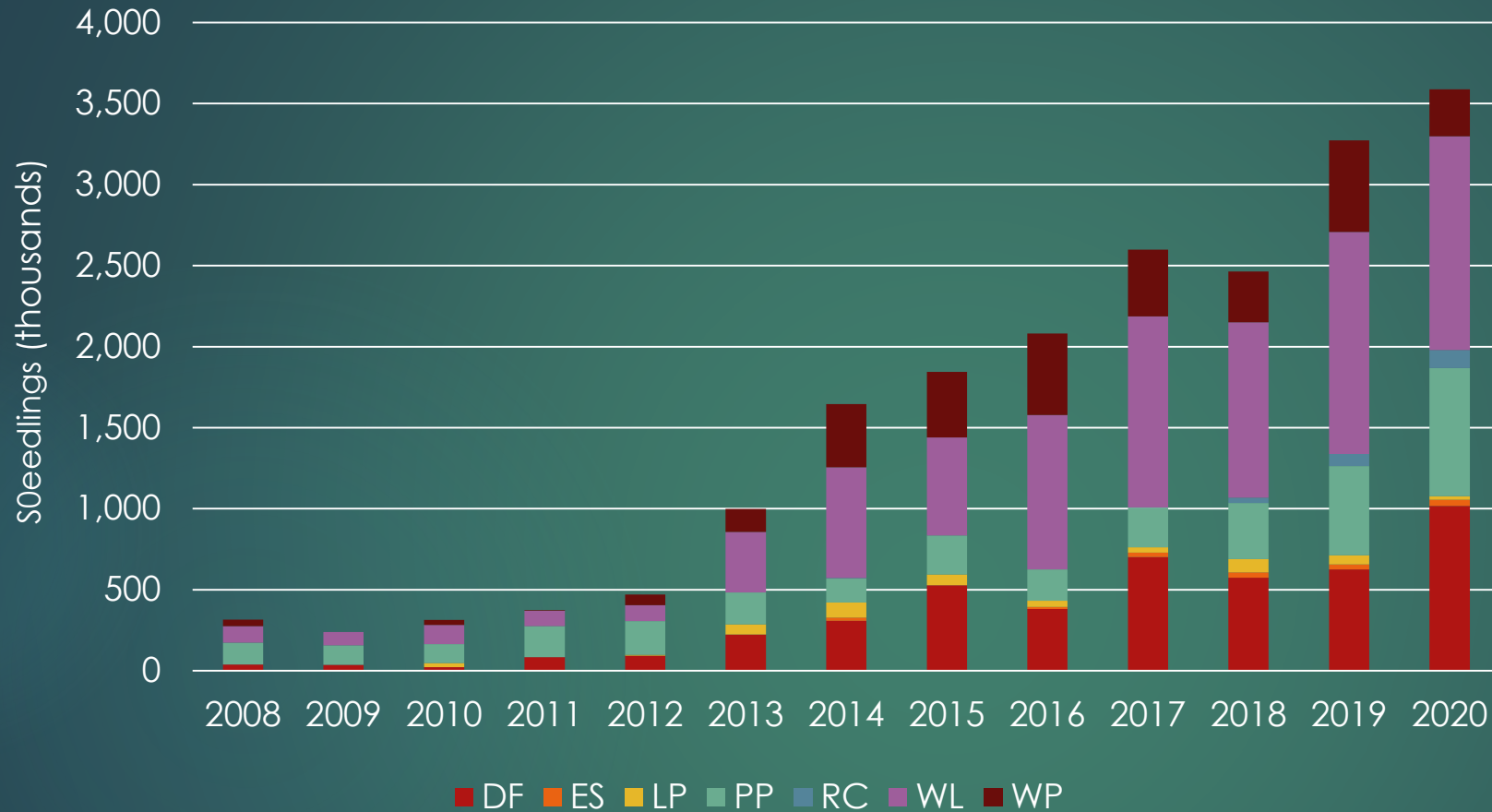








# Nursery Growing Agreements





# Rules of Acquisition (seed)

- ▶ Enough is never enough.
- ▶ More is good, all is better.
- ▶ Always keep your ears open.
- ▶ Dignity and an empty sack is worth the empty sack.
- ▶ People are eager to sell seed they don't want (a bargain usually isn't).



# Stimson's Commitment to Intensive Forestry

- ▶ Maintain tree planting at the current level for the foreseeable future.
- ▶ Ensure plantation performance via site prep, monitoring and replanting, if necessary.
- ▶ Continue to develop a seed bank capable of supporting a large planting program.
- ▶ Maintain a nursery program of sufficient capacity and quality to meet reforestation goals.
- ▶ Eliminate the backlog of timberland needing PCT and rehab.
- ▶ Facilitate development of seed orchards in the Inland.

