Idaho Timberland Productivity

APotlatchDeltic

PotlatchDeltic Idaho timberlands are the most productive Northwest timberlands east of the Cascade mountains



Maximum Stand Density Index - Douglas fir

Kimsey Jr, M. J., Shaw, T. M., & Coleman, M. D. (2019). Site sensitive maximum stand density index models for mixed conifer stands across the Inland Northwest, USA. Forest Ecology and Management, 433, 398-404.

Average site index on the Potlatch North Idaho ownership is considerably higher than the Inland Northwest average due to: Montana end Oreil Stevens Better soils (volcanic ash base) Kootena Spokane Shoshon Benewal Final Site Index Model (ft) <=50 51 - 60 Latah 61 - 70 71 - 80 81 - 90 Nez Perce >90 **Unstable Model Areas** 40 > Site Index > 130 Counties Kilometers 50 100 25

Higher precipitation

Douglas fir maximum stand density index (SDI) is a measure of stocking capacity based on the maximum numbers of trees of a given size per acre a site can support. Maximum SDI is highly correlated with site productivity which is a function of soil type, precipitation and elevation.

- Mild Pacific Northwest climate
- Ideal "sweet spot" elevation

Higher site index results in:

- More rapid growth and shorter rotations resulting in higher annual harvests
- Lower stand establishment costs due to better seedling survival on good sites
- Higher stocking at final harvest, reducing logging costs
- · More valuable species (more cedar, less ponderosa pine)

Source: Kimsey, Mark. Geospatial Douglas-fir Site Index Modeling for Northern Idaho and Northeast Washington. Intermountain Forest Tree Nutrition Cooperative, University of Idaho. June 2014.

Idaho Timberland Productivity

Volcanic Ash Provides Favorable Soils

Volcanic ash enhances soil productivity for timber growth, facilitating moisture retention. Typically moisture is a limiting factor in the Inland Northwest.



Mt. St. Helen

Mt. St.

Helens

Precipitation Patterns Favor Timber

Prevailing southwest winds carry Pacific moisture over the Cascades and Central WA/OR deserts into the Idaho mountains.



Idaho rainfall is comparable to lower elevations on the wetter west side of the Cascades.

Pacific Northwest Average Annual Precipitation 1961-1990

Mazama Ash

crater Lake

PCH



Source: Oregon Climate Service (Oregon State University)

Idaho Timberland Productivity

Ideal Elevation for Trees

Lower elevations provide a warmer climate and longer growing season, while higher elevations see more rainfall. The ideal "sweet spot" elevation for best tree growth in Northern Idaho is around 3,500 feet, where the tradeoffs between precipitation and temperature are most favorable. The majority of PotlatchDeltic stands are in the sweet spot.



Source: Haig, I.T. "Second-growth yield, stand, and volume tables for the western white pine type." Technical Bulletin No. 323, USDA



Our Idaho Timberlands

- PotlatchDeltic Idaho timberlands are the most productive Northwest timberlands east of the Cascade mountains
- Timberlands support several major species including Hem-Fir and valuable Douglas Fir/Larch and Cedar
- Significant portion of softwood sawlog prices are indexed to lumber and benefit from strong market conditions
- Diverse customer base with 1/3 of sawlogs used internally at St. Maries plywood and lumber mills

PotlatchDeltic Idaho Timberlands EBITDDA / Acre Comparable to Western Oregon and Washington

250 mi

375 mi

125 mi

500 mi



Source for competitor data: SEC filings and financial reports.

0 mi