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April 4, 2026

Re.: Plumas Wood Fiber Growth Trials – Final Report

Synopsis

Alta Nursery, Inc., a wholesale grower of starter plants, ornamental shrubs, and trees, located in San Jacinto, CA, is participating in Plumas Wood Fiber growth trials in fall/winter 2025-26. Alta Nursery, Inc. produces a wide diversity of liners (“starter plants”) through propagation of seed, divisions, and unrooted cuttings. Liners are primarily sold in the California market in 32-cell trays. The nursery produces 4-6 million liners annually. The nursery prepares its own soil mix in larger batches and replaced Peat Moss with redwood fiber several years ago to make its production more sustainable.

For the Plumas Wood Fiber growth trials, the nursery selected four plant species and two growth conditions (greenhouse with heat and environmental controls, shade house). Three treatment soils were established: our standard liner soil mix (control), a 50:50 blend whereby half our regular virgin redwood fiber was replaced with Plumas Wood Fiber, and a 100% Plumas Wood Fiber soil mix where all redwood fiber was replaced by the Plumas Wood Fiber (Table 1, below). For each trial, established plugs were transplanted into 32-cell trays as described above. At least 500 cells were established for each species and treatment. Irrigation, shade, and fertilization through slow-release fertilizer granules were identical for outdoor trials. The indoor trial was maintained at 70-75°F at the root zone of the plants and received a once-weekly liquid fertilizer boost.

A first assessment of plant health and root development was conducted on Wednesday, December 4, 2025 (see prior report). A final assessment was made on Saturday, April 4, 2026 (current report). Three of the four plants used in these trials, *Rhamnus Californica*, *Rhaphiolepis Umbell Minor*, and *Lonicera Heck ‘Gold Flame’*, had reached maturity and were sold since the progress report (Table 1). According to our head grower, the quality of all three treatments was excellent, and no discernible differences were observed (data not shown). The fourth plant in the trials, *Juniper Scopulorum Moonglow*, is slower to develop and only recently reached maturity. An overall visual inspection of the growth beds was conducted for this species. A random set of three liners from each treatment was removed from their cells, and root growth was visually evaluated.

Table 1. Species and trial conditions.

Species	greenhouse/ shadehouse	transplant date	outcome
Juniper Scopulorum ‘Moonglow’	shadehouse	October 24, 2025	evaluated in this report
Rhamnus Californica	shadehouse	November 4, 2025	<i>sold in toto</i> between reports
Rhaphiolepis Umbell Minor	shadehouse	October 28, 2025	<i>sold in toto</i> between reports
Lonicera Heck ‘Gold Flame’	greenhouse	October 24, 2025	<i>sold in toto</i> between reports

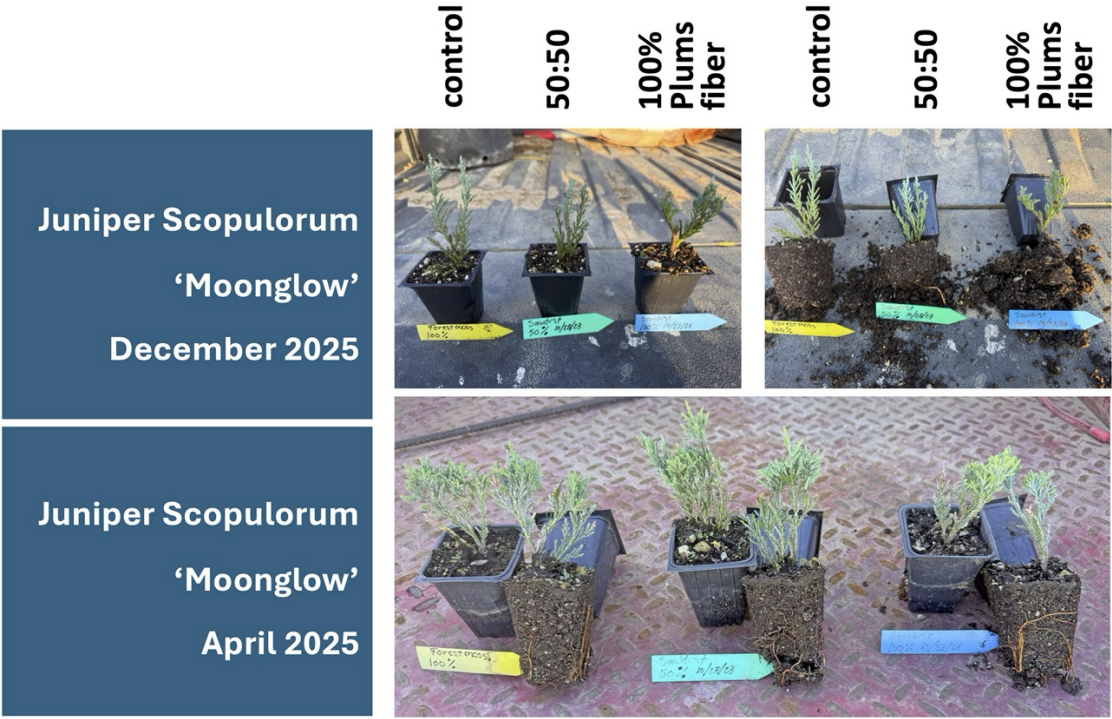


Figure 1. Representative liner plants after 4 months growth.

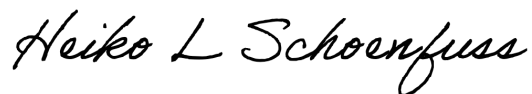
Final Observations

Survival exceeded 95% across all trials and treatments, consistent with our standard operating conditions and expectations. Few discernible differences were apparent in the development between groups of liners representing the different treatments within each species trial.

Neither plant growth nor root growth appears to be significantly impacted by any treatment or species (Figure 1). Soil structure's coherence as the plant was removed from the container was similar across treatments (this had been one observable difference after 3-4 weeks of growth).

Conclusions

Liner mixes prepared with Plumas wood fibers performed comparably to our regular liner mix with no discernible differences in plant growth, root development, or overall quality. Plumas wood fiber appears to be a suitable, local, sustainable substitute for nursery liner production at Alta Nursery, Inc.

A handwritten signature in black ink that reads "Heiko L. Schoenfuss". The script is fluid and cursive, with the first letters of each word being capitalized and prominent.

Heiko L. Schoenfuss, PhD
April 4, 2026