

PLUMAS WOOD FIBER Trial

Walla Walla Nursery Co.

Greenhouse & Open Can Lot

Seven week trial period

Purpose:

Evaluate whether a 20% Plumas Wood Fiber substrate can produce acceptable rooting, survival, vegetative growth, and finished plant quality compared with the control Mix.

Result Summary:

The trial was successful in both crops. Achillea appeared larger with fuller rooting and the Lavender displayed stronger foliage color.

Anticipated Outcomes:

1. pH- no change
2. EC- no change
3. Drainage/Air Space- Improvement
4. Water Retention- slight reduction
5. Root development- equal or better than control due to improved air space and drainage
6. Vigor- no change
7. Shrink- no change
8. Cost- slight reduction, potential with scale

Mix	Plumas Fiber	Aged Fine Fir Bark	Grower Grade Peat moss	Screened Pumice
Control	0%	40%	40%	20%
Trial Mix	20%	40%	30%	10%

Date	Program	Genus/Variety	Variety	Input	Container Size	Control Qty.	Wood-Fiber Qty.
5/11/2026	P	Achillea millefolium	Paprika	72	#1	10	10
5/11/2026	P	Lavandula Angustifolia	Hidcote	72	#1	10	10

Trial Details:

Measurements were recorded during weeks 5, 6, and 7 for both the control and trial substrates.

EC and pH were monitored to identify changes in substrate chemistry.

Rooting percentage, plant losses, and vegetative growth were recorded to compare crop establishment and development.

Overall plant vigor was visually rated based on plant size, fullness, and general appearance.

Final comparison photos were used to document visible differences.

Trial Results

1. *Achillea millefolium* 'Paprika'

Control Substrate					
Timeline	EC	pH	Rooting Percentage	Losses	Opinion (Poor, Average, Great)
Base Measurement	1.9	6.1	N/A	N/A	N/A
wk5	1.8	6.1	40%	0	Average
wk6	1.7	6.1	70%	0	Average
wk7	1.7	5.8	100%	0	Average

Trial Substrate					
Timeline	EC	pH	Rooting Percentage	Losses	Opinion (Poor, Average, Great)
Base Measurement	1.8	6.1	N/A	N/A	N/A
wk5	1.8	6.1	50%	0	Average
wk6	1.7	6.3	75%	0	Average
wk7	1.6	6.0	100%	0	Great



1. Lavandula angustifolia 'Hidcote'

Control Substrate					
Timeline	EC	pH	Rooting Percentage	Losses	Opinion (Poor, Average, Great)
Base Measurement	2.0	6.3	N/A	N/A	N/A
wk5	1.8	6.1	40%	1	Average
wk6	1.8	6.1	65%	1	Average
wk7	1.6	6.0	100%	2	Average

Trial Substrate					
Timeline	EC	pH	Rooting Percentage	Losses	Opinion (Poor, Average, Great)
Base Measurement	1.9	6.1	N/A	N/A	N/A
wk5	1.7	6.2	45%	1	Average
wk6	1.7	6.1	75%	1	Average
wk7	1.5	5.8	100%	1	Great





Results:

1. Achillea millefolium 'Paprika'

The Achillea trial treatment rooted more quickly during weeks 5 and 6, and both products reached 100% rooting by week 7. The comparison photos were taken on week 10. The trial shows a visibly larger plant, suggesting greater mass than the recorded height measurement alone captured

2. Lavandula angustifolia 'Hidcote'

Lavender rooting and losses were essentially equivalent between treatments, with both reaching 100% rooting by week 7. The trial plant displayed noticeably stronger green foliage color and a fuller appearance.

Final Trial Summary

This trial evaluated whether a substrate containing 20% Plumas Wood Fiber could perform comparably to our control mix. Crop establishment, rooting, survival, basic substrate chemistry, and finished plant appearance were evaluated throughout the trial.

The wood fiber substrate performed successfully in both crops, producing vigor and root development that were equal to or better than the control. No significant issues associated with the Plumas Wood Fiber were observed.

Going into the trial, I expected the wood fiber to neither improve nor negatively affect plant growth. What stood out most was the stronger foliage color of the lavender grown in the wood fiber substrate. I believe the increased porosity provided by the wood fiber may have contributed to this difference by improving air space and drainage, although those physical properties were not directly measured.

Overall, these results support the use of Western wood fiber as a viable component of horticultural growing substrates.