



Eucalyptus vs Mixed Hardwood

Comprehensive Performance White Paper

1 Executive Summary

Eucalyptus timber mats represent a paradigm shift in ground protection solutions:

- **100-300% stronger** than mixed hardwood alternatives
- **0% attrition** documented over 3+ years
- **25% more mats per truck** after 6 months
- **40-60% lower** Total Cost of Ownership

2 Material Properties Comparison

Laboratory testing per ASTM standards confirms Eucalyptus grandis consistently outperforms mixed hardwood:

Property	Eucalyptus	Mixed Hardwood	Advantage
Bending Strength	2,000 psi	550-1,000 psi	100-300% stronger
Shear Strength	265 psi	155-200 psi	32-71% stronger
Compression Strength	970 psi	750 psi	29% stronger

Source: Mobile Crane Support Handbook, 2nd edition

3 Lifespan and Durability

Eucalyptus: 5-7 year expected lifespan, 0% documented attrition over 3 years

Mixed Hardwood: 18-24 month typical lifespan, variable attrition

"1000 mats purchased 3 years ago—attrition = 0%"
— World Forest Group Customer

Result: Eucalyptus lasts **100-400% longer** than mixed hardwood.

4 Transportation Efficiency

- **New mats:** ~10% more Eucalyptus mats per truckload
- **After 6 months:** 25% more mats per truck
- **Impact:** Significantly lower per-mat freight costs

5 Total Cost of Ownership Analysis

Initial Purchase Price	Competitive
Lifespan Extension	100-400% longer
Transport Costs	Lower (more mats/truck)
Labor/Handling	Fewer replacements
Disposal Costs	Fewer mats to retire

40-60% Lower Total Cost of Ownership

vs. Mixed Hardwood Alternatives

6 Quality and Standardization

World Forest Group's 10-Point Manufacturing Guarantee ensures:

- Solid construction with square timbers
- Properly bolted, no wane and bark
- Consistent dimensions and uniform quality

7 Environmental Considerations

- Plantation-grown Eucalyptus: 35-40 year harvest cycle
- Reduced pressure on native North American forests
- Higher carbon sequestration due to faster growth
- FSC/PEFC certified supply chain options

8 Conclusion and Recommendation

100-300%

Stronger

100-400%

Longer Lifespan

25%

More Mats/Truck

40-60%

Lower TCO

Ready to see the savings for your operation?

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