

## FIRST SALES ORDER FROM YASUHARA CHEMICAL COMPANY AND SUCCESSFUL STUMP TRIALS TRIGGER DECISION TO DOUBLE PRODUCTION TO 16,000 TPA

## CAPITAL RAISING SUPPORTED BY NEW AND EXISTING INSTITUTIONAL AND SOPHISTICATED INVESTORS

### Highlights:

- ✓ Leaf to double operational production capacity of natural pine chemicals to 16,000tpa
- ✓ Major customer tests by Yasuhara confirm Leaf's product meets all required specifications and contains no unnatural residues
- ✓ Successful stump trials confirm the business case of using stumps as a feedstock and dramatically increase the availability of wood supply for Leaf's natural pine chemical manufacturing
- ✓ Wood pellet production fast-tracked; expected to generate additional \$8.0m revenue per annum<sup>1</sup>
- ✓ Placement completed to new and existing institutional and sophisticated investors, raising a total of \$8.0m, to finance expansion

Leaf Resources Limited (ASX: LER) ("**Leaf**" or "**Company**"), positioned to become a leading supplier of sustainable pine chemicals, is pleased to announce its intention to double operational capacity from 8,000tpa to 16,000tpa following the successful product testing and subsequent purchase order from Yasuhara Chemical Co. LTD ("**Yasuhara**") of Leaf's natural terpenes product. The Company has identified an opportunity to manufacture high value wood pellets using the lower value wood chip already being produced as the feedstock. At the new operational capacity, two pellet lines are expected to have a pay-back period of 6-months and generate additional annual revenue of \$8.0m<sup>1</sup> to Leaf.

The increase in rosin and terpene production in combination with wood pelletisation are expected to increase annual revenue potential by 123% from \$31.2m to \$69.5m<sup>1</sup>, operating at full capacity.

### SUCCESSFUL STUMP TRIALS

Over the last 6-months, Leaf has carried out trials that have successfully confirmed the viability of pine stumps as a feedstock to Leaf's proprietary and patent pending pine chemical production process. Not only do pine stumps have +20% more pine chemicals in comparison to logs, but stump harvesting is also regenerative and encourages reforestation.

Prior to this groundbreaking work and analysis, stumps have typically been left in the ground as forest and timberland managers considered stumps a waste product due to the relatively high cost of removing them.

1. Refer to Table 1 for details.

The strategic importance of harvesting stumps for forest managers is that it removes their largest cost as well as unlocking a new revenue stream for them. Indications are that stump harvesting in combination with Leaf's ESG focus is of high interest to forest managers.

By proving the viability of stumps as a feedstock for Leaf's process, and demonstrating an otherwise unavailable economic benefit to forest managers, Leaf has dramatically increased the availability of wood supply for its pine chemical process both locally and on a global basis. The techniques are readily transferable to different forests and different locations. The Company has shortlisted geographic expansion opportunities that continue to be assessed.

## **CUSTOMER DEMAND**

During June, Leaf sent product samples to Yasuhara for testing and analysis. Having completed its test work, Yasuhara confirmed and accepted that Leaf's product meets required specifications and contains no trace of foreign or unnatural chemicals or residues.

Leaf is delighted to report that it has now received its first purchase order for its natural terpene product, an exciting milestone for the Company.

Leaf is experiencing strong customer interest for natural rosin and terpenes which contain no residual unnatural chemicals, as confirmed by Yasuhara. Contract sizes for various customers range from 2,000t to 5,000t.

## **PRODUCTION EXPANSION DOUBLED TO 16,000 TPA**

As a result of confirmed product quality and the resulting customer demand, Leaf plans to double production of its natural rosin and terpene products.

The strong customer demand and successful stump trials have dramatically increased the availability of wood supply which is the critical factor in Leaf's decision to take this exciting step.

The increase in production capacity of natural rosin and terpenes from 8,000tpa to 16,000tpa is expected to increase annual revenue potential from c.\$30m to c.\$60m (once operating at full capacity from natural pine chemicals not including wood pellets).

The Company advises that it has many expansion opportunities to increase production beyond 16,000tpa and each opportunity is being reviewed on its merits.

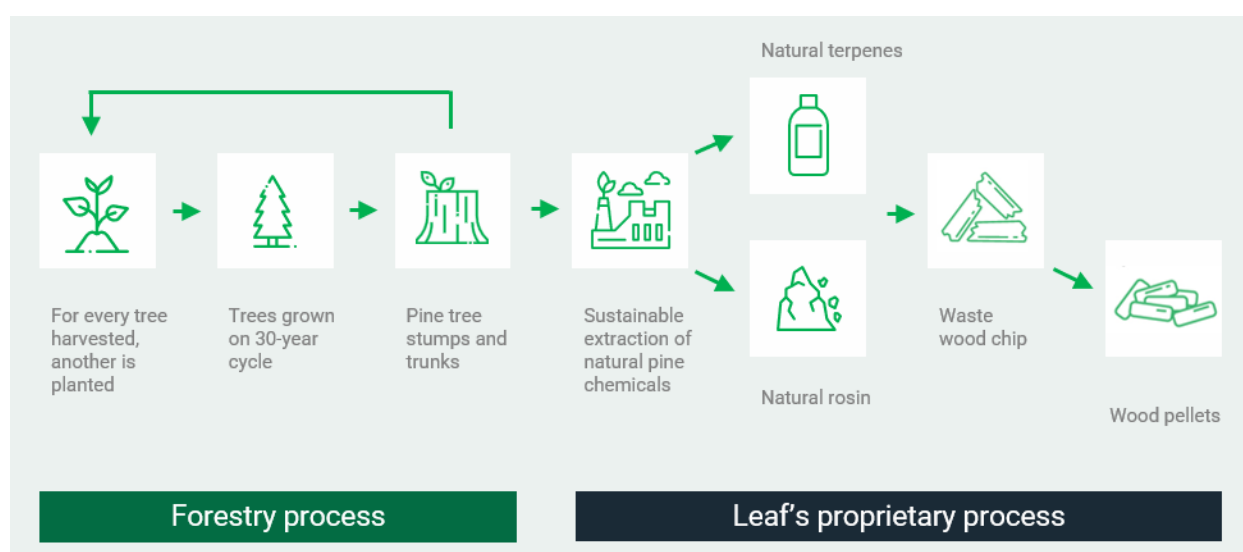
Product	Revenue Per tonne AUD*	Previous Capacity			Expanded Capacity	
		Operating capacity (Apple Tree Creek)	Revenue Potential		Operating capacity (Apple Tree Creek)	Revenue Potential
ROSINS	\$3,345	6,800 tpa	\$22.7m		13,600 tpa	\$45.5m
TERPENES	\$6,230	1,200 tpa	\$7.5m		2,400 tpa	\$15.0m
WOOD CHIPS	\$36	27,500 tpa	\$1.0m		0 tpa	\$0.0m
WOOD PELLETS	\$207	0	\$0.0m		43,800 tpa	\$9.1m
<b>TOTAL</b>			<b>\$31.2m</b>			<b>\$69.5m</b>

\* Rosnet, spot prices July 2021 and assuming USD/AUD exchange rate of \$0.74

Table 1: Annual revenue potential based on plant capacity

## WOOD PELLET PRODUCTION

Leaf intends on fast-tracking the implementation and construction of two wood pellet production lines. Wood pellets are a natural progression for the Company as the feedstock for wood pellets comprises wood chips which are already being produced in large quantities, and will continue to grow with the doubled 16,000tpa capacity.



Wood pellet production is expected to increase the Company's future revenue by an additional \$8.0m per annum at the new full production rate of 16,000tpa. Installed wood pelletisation equipment capex is estimated at \$4m and pay-back is estimated at 6-months at full production.

Wood pellets (biomass) are a low-cost, low-carbon alternative to coal and are a renewable source of energy. Wood-based bioenergy is part of an all-in renewables strategy as explicitly recognised by the Intergovernmental Panel on Climate Change (IPCC) to reduce carbon emissions and limit dependence on fossil fuels. Wood pellets reduce toxic emissions compared to fossil fuels, such as coal, which release arsenic, carbon monoxide, sulphur and carbon dioxide when used for heat and energy.

This is consistent with the Company's environmental focus.

Rising awareness about renewable energy sources and reduction in greenhouse gas emission in power generation are anticipated to propel the power generation segment of the global wood pellet market in the short term. The wood pellet market is expected to increase at a robust CAGR of 11% p.a. between 2020 to 2030 (Transparency Market Research July 2021).

#### APPLE TREE CREEK UPDATE



*Leaf's Apple Tree Creek Plant, July 2021*

The Company confirms it is on track for 8,000tpa production run-rate despite a brief slow down for 3-4 weeks due to recent Covid-19 lockdowns.

Production ramp up will continue in the July quarter and run in parallel with expansion activity.

#### INSTITUTIONAL PLACEMENT TO FUND EXPANSION

The Company is pleased to advise that it has secured firm and binding commitments to raise \$8.0m (before costs) through the issue of 80.0m new fully paid ordinary shares at an issue price of \$0.10 ("**Offer Price**") per new share ("**Placement**"). The Offer Price represents a 9.1% discount to the last traded price and a 13.5% discount to the 15-day volume-weighted average price of \$0.116.

The Placement was strongly supported by a range of new and existing institutional and sophisticated investors. Shares from the placement will be issued under the Company's existing capacity under ASX Listing Rule 7.1A. Shares are expected to be issued on or around 22 July 2021.

The proceeds from funds raised from the Placement are intended to be used to finance the wood pellet equipment and fast-track expansion beyond 8,000tpa.

Sequoia Corporate Finance acted as lead manager and bookrunner to the placement.

#### **AUTHORISATION STATEMENT**

This update has been authorised to be given to ASX by the Board of Leaf Resources Limited.

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#### **ABOUT LEAF RESOURCES**

Following the acquisition of Essential Queensland Pty Ltd ("EQ") in December 2020, Leaf Resources is embarking on the biggest step-change the pine chemicals industry has experienced since the 1950's. It has developed a world-first, proprietary process for extracting pine chemicals in a sustainable and scalable way.

Leaf applies the patented natural organic solvent production process to extract sustainable and clean pine chemicals from resinous pine logs and stumps at significantly lower cost than existing global supply, without the chemical additives traditionally used.

Leaf and EQ technologies enable the replacement of petroleum-based chemicals and plastics as society moves towards the bio economy.