



**ArborGen**  
—HOLDINGS—

# Positioned For Accelerated Growth

July 2021

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# Agenda

- Business Highlights
- Our leading positions
- How we are transforming forest productivity
- Financial performance
- Poised for accelerated growth – macro drivers and outlook for FY22 and beyond

## Spokespeople

- Andrew Baum, CEO
- Kathy Parker, VP Finance & Accounting
- Sharon Ludher-Chandra, Company Secretary & Performance Improvement Director
- Cathy Quinn, Director Marketing & Communications
- George Adams, NZ based independent director

# Business highlights

We are the leading commercial provider of advanced genetic tree seedling products

- Global leader in tree improvement technology, transforming forestry productivity
- Leading positions in all current markets - US South, NZ, Brazil & Australia
- Superior positioning vis a vis the competition – decades of proprietary R&D investment, solid production platforms, strong sales & marketing capability
- Strong market dynamics – strong housing growth trends, growing focus on reducing carbon emissions
- Extensive commercial operations comprising 18 seedling nurseries, 13 seed producing orchards and overall production capacity of 540 million seedlings ... servicing more than 2,000 customers each year

Profitable business well positioned for strong growth

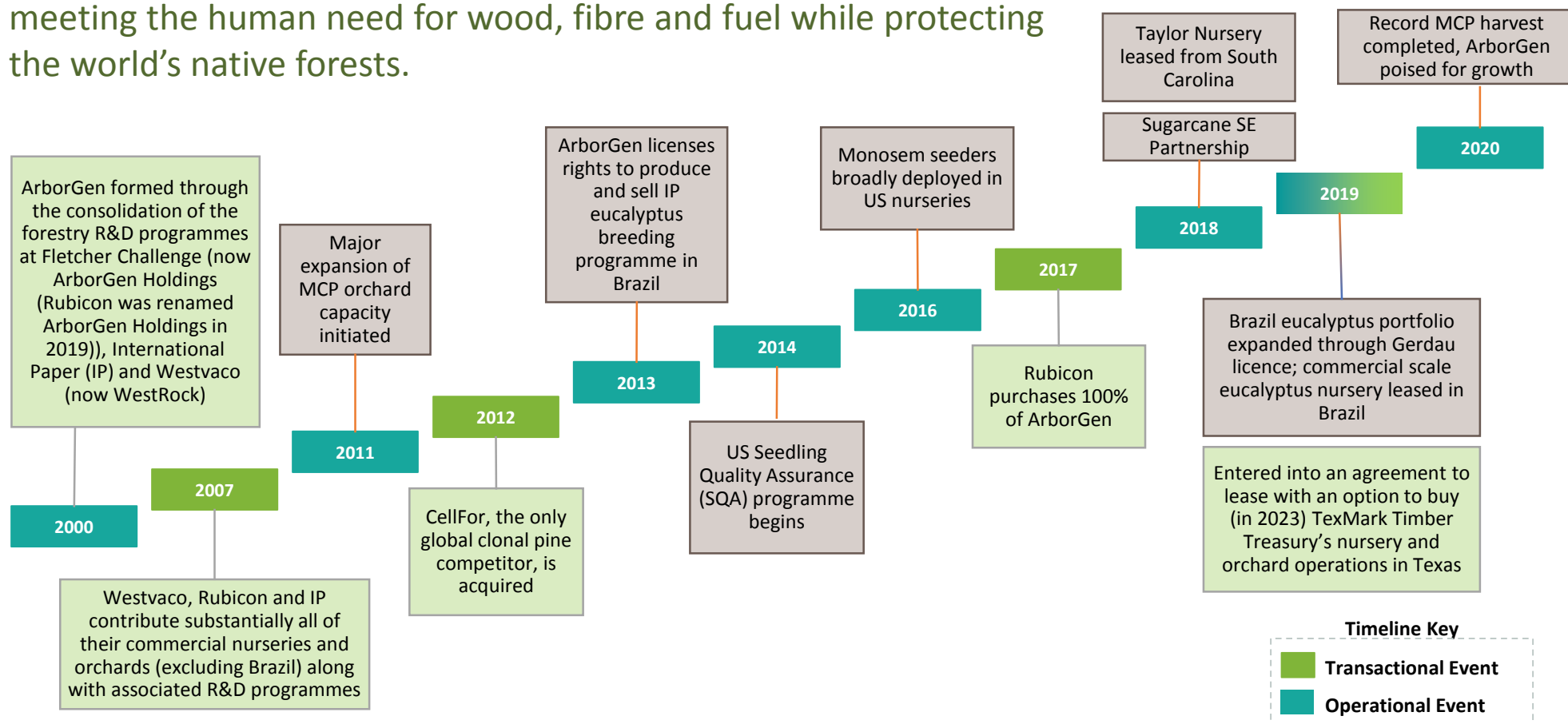
## FY22 Outlook and Guidance

- **US-GAAP EBITDA guidance for FY22 of \$13 - \$14.5 million** – a material increase on FY21 US-GAAP EBITDA which included government grant income, **resulting in higher cash flow and further reduction in net debt**
- Strong tailwinds for FY22 and beyond – strong housing growth and carbon credits provide significant growth opportunities, with added opportunity to extend proprietary intellectual property into other crop species



# History of ArborGen

Since its formation in 2000, ArborGen has been committed to meeting the human need for wood, fibre and fuel while protecting the world's native forests.



ArborGen is now beginning to realise the gains from over two decades of investment with proven Mass Control Pollinated (MCP®) performance at commercial scale; increased market acceptance of the value of MCP products and an increasing supply of MCP seed.

# Leader in three of the largest tree seedling markets in the world



ArborGen Sales Volume



## Existing ArborGen operating business

Our business spans over 20 locations in four countries and has more than 185 employees.

# Leader in three of the largest tree seedling markets in the world

## United States

- Largest market representing ~75% of ArborGen's sales volume
- Primarily loblolly pine – advanced genetics (MCP & varietal) comprising 31% of sales in FY21
- Leading supplier of MCP in the US South
- MCP sales expected to increase substantially – increasing 30% (or 30m) in FY22
- With increasing supply from ArborGen's orchards & continued demand growth, MCP sales expected to increase substantially over next few years

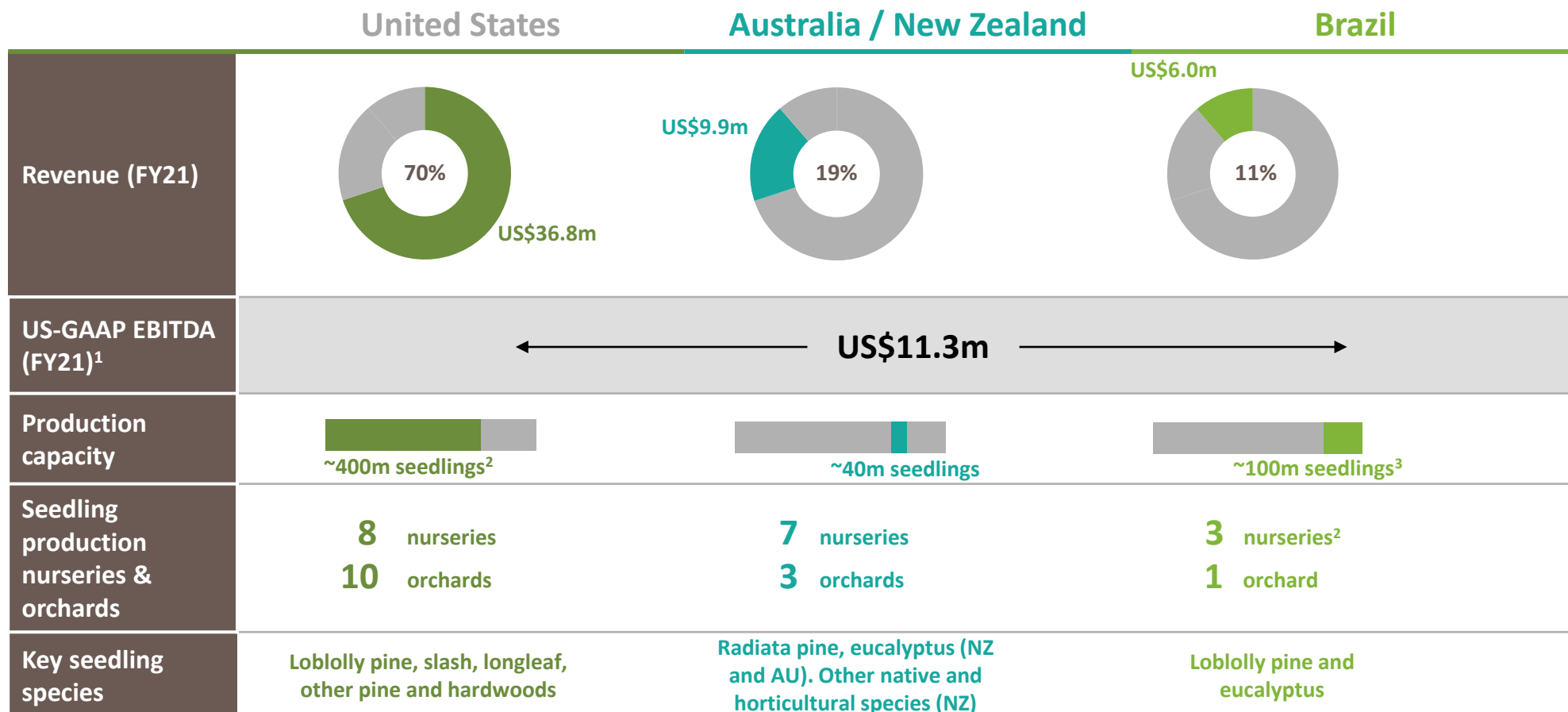
## ANZ

- Only NZ seedling provider with national presence
- Advanced genetics comprised over 80% of ANZ's radiata pine sales in FY21
- Much higher % of advanced genetics sales due to early adoption by large institutional investors & supply
- Primary supplier to institutional land owners
- Growing horticulture business propagating high value horticulture species – hops, blueberries, rubus

## Brazil

- One of the largest commercial suppliers of seedlings – sells proprietary and licensed genetics
- Majority of sales are eucalyptus, sold through distribution network in all primary eucalyptus growing regions in Brazil
- More than 50% of eucalyptus sales are advanced genetics clones licensed from International Paper, Gerdau & Vallourec, with ArborGen's own proprietary products in pre-commercial phase now
- Also sells proprietary loblolly pine genetics and genetics licensed from Arauco and CMPC

# Geographic split



1. US-GAAP EBITDA includes other significant items. In FY21 significant items totalled US\$2.0m, comprised of government grant subsidies of US\$3.7 million, partially offset by expenses in the period of US\$1.7 million relating to seedlings written-off and incremental COVID-19 expenses incurred in the period.

2. Includes outsourced container production.

3. ArborGen outsource over half of its eucalyptus production and all of its pine production in Brazil. Production capacity quoted relates to internal nurseries (3) and contract nurseries (21).





# ArborGen: Transforming Forest Productivity

We are world leaders in developing and selling advanced genetics tree seedlings that deliver significant value to landowners.

# Leading technology platform

We are the leading provider of proprietary advanced genetics operating across the entire technology spectrum



## Germplasm Repository

Own one of the world's largest and most diverse repositories of commercial tree germplasm

Repository of more than 30,000 families and the ability to identify trees that will perform best in specific regions and sites



## Tree Improvement Expertise

Built on 100+ years of collective tree improvement research

Based on the most comprehensive and extensive field trial program in forestry, currently conducting ~1,000 field trials containing more than 1 million trees



## Proprietary Production Technologies

Enabling commercialisation of unique proprietary products, and entry into new crop species



## Genomics and Bioinformatics

Pioneering the use of genomics in loblolly pine which will accelerate product development timelines

ArborGen uses advanced statistical models and proprietary growth and yield models to develop products with advanced genetics



## Biotechnology Product Development

We are developing eucalyptus products with herbicide resistance using our eucalyptus transformation system which is one of the broadest and most advanced in the world

# Overview of pine products

Seedlings are produced from seed produced through two different production processes: Open Pollinated Seedlings (OP) and Mass Control Pollinated (MCP or CP) Seedlings. ArborGen also sells varieties (or clones) in the US, New Zealand and Brazil



## Open Pollinated (OP)

Top 25% of OP tested families

- Known superior mother tree and mixed select father trees
- Plant approximately 600 trees per acre
- First thinning approximately 13 - 15 years
- First thinning may yield 40 - 50 tonnes per acre
- Final harvest with 20% - 50% of trees in sawtimber
- Available in bareroot and containerised: loblolly and slash pine



## Mass Control Pollinated (MCP)

Hybrid Crosses of the most Elite Tested Parents

- The top 1% of 8,000 tested Loblolly families
- Substantially higher elite genetic gain by crossing specific mother and father trees
- Plant approximately 550 trees per acre
- First thinning 1 - 2 years earlier
- 50 - 100% gain in Net Present Value
- Total Revenue gain > 40%
- First thinning yields approximately 30% more volume with as much as 30% solid wood potential
- Final harvest with 60% - 80% of trees in sawtimber
- Available in Advanced, Select and Elite and 2.0: bareroot and containerised Loblolly



## Varietals

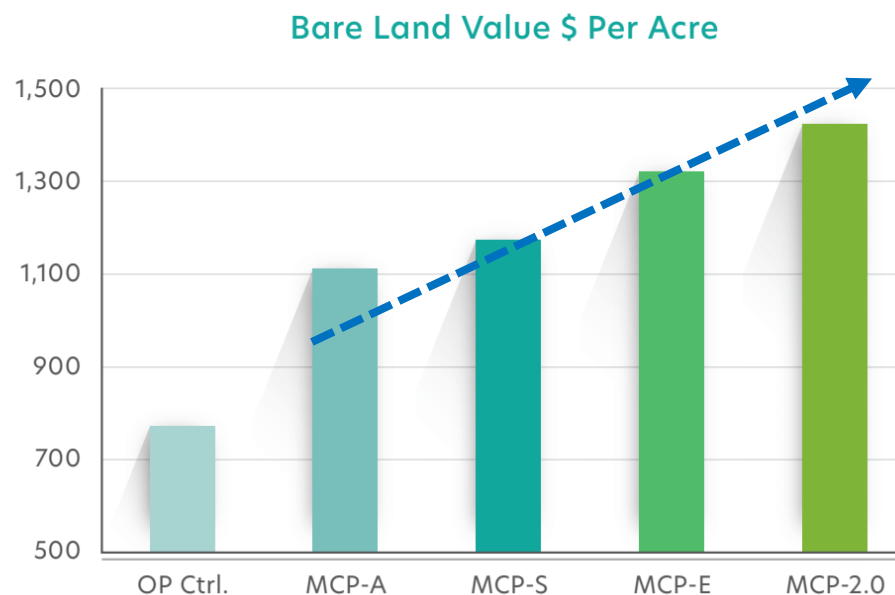
Exact Copies of Highest Performing Trees

- Each varietal is a genetic copy of a specific tree rigorously tested for superior traits
- Plant approximately 500 trees per acre
- First thinning 2 - 3 years earlier
- 80% - 120% gain in Net Present Value
- Total revenue gain > 50%
- First thinning yields approximately 60% more volume with as much as 50% solid wood potential
- Final harvest with > 80% of trees in sawtimber
- Multiple varieties adapted for the entire natural range of loblolly pine, barefoot and containerised loblolly

# Advanced genetics create substantial value for landowners

- ✓ Faster growth rate with first thinning as early as 11 to 13 years
- ✓ Higher yield with more wood per acre
- ✓ 30 – 40% more sawtimber on final harvest vs OP for loblolly
- ✓ Greater uniformity and quality – straighter, reduced forking, better branch morphology
- ✓ Improved disease and stress resistance

84% value accretion



*Indicative only – ultimate value accretion is dependent on site location and silviculture regime adopted, amongst a range of other factors. Bare land value or BLV is a specialised Discounted Cash Flow technique used for timberland investments that calculates the value of bare land in timber production.*



# Core growth strategy – MCP® growth in the US

## Grow the supply and sales of proprietary advanced seedling genetics in the US

ArborGen is now at an inflection point, poised to benefit from 20+ years of investment in developing best-in-class proprietary MCP products, expanding supply of proprietary genetics through orchards establishments across the US South, and upgrading customers to MCP seedlings

The most advanced and broadly adapted MCP pipeline in the industry...

ArborGen's best-in-class MCP seedlings are developed from **crossing specific elite mother and father parent trees to generate seed with the highest genetic potential**

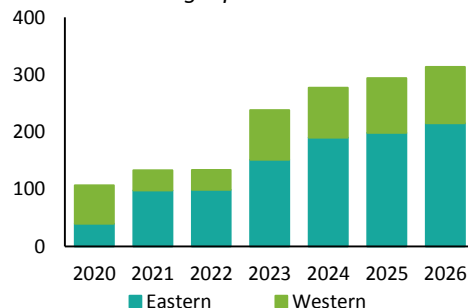
ArborGen's MCP seedlings deliver **substantial gains to forest owners**

More than **20 years of field trials and published evidence supporting the superior performance of MCP**

... significantly increasing MCP supply...

ArborGen has **invested significantly in expanding the supply of its superior MCP products**, with previous investments now showing a marked increase in future supply

US South MCP Supply Availability<sup>1</sup>  
million seedling equivalents



...and favourable market dynamics, & strong sales team

**Strong US housing trends and timber supply/demand** dynamics in the US South

**Increasing demand for new wood products**, particularly the use of mass timber

**Increasing importance of trees in addressing rising CO2 levels** through afforestation and reforestation projects

... combined with **the best sales team in the industry**

...driving increased MCP sales at significantly higher margins than OP

ArborGen's MCP seedlings deliver significant gains to forest owners and \$ margins 6-8 times than that of OP seedlings

ArborGen is the leading provider of MCP seedling products in the US, responsible for 80+% of all MCP sales

ArborGen is years ahead of the competition

The chart shows projected seed supply in seedling equivalents, rather than sales. 2020 year refers to the fiscal year ending March 2021. MCP supply projections are based on a number of factors including the number of trees in our seed orchards, number of flowers bagged and number of flowers pollinated each year which are subject to climatic variabilities), as well as bushels of cones harvested, pounds of seed extracted per bushel, and the number of seedlings per pound of seed. As such, actuals may vary from projections due to biological factors outside of our control, as well as operational decisions.



# ArborGen advanced genetics are a game-changer for forest landowners

*"Landowners have one opportunity to influence the genetic quality of the seedlings planted in a stand. If the wrong choices are made, the landowner will suffer the consequences of those decisions for 25 years or longer."*



**Dr. Steve McKeand**  
Former Director, NC State  
Cooperative Tree Improvement Program



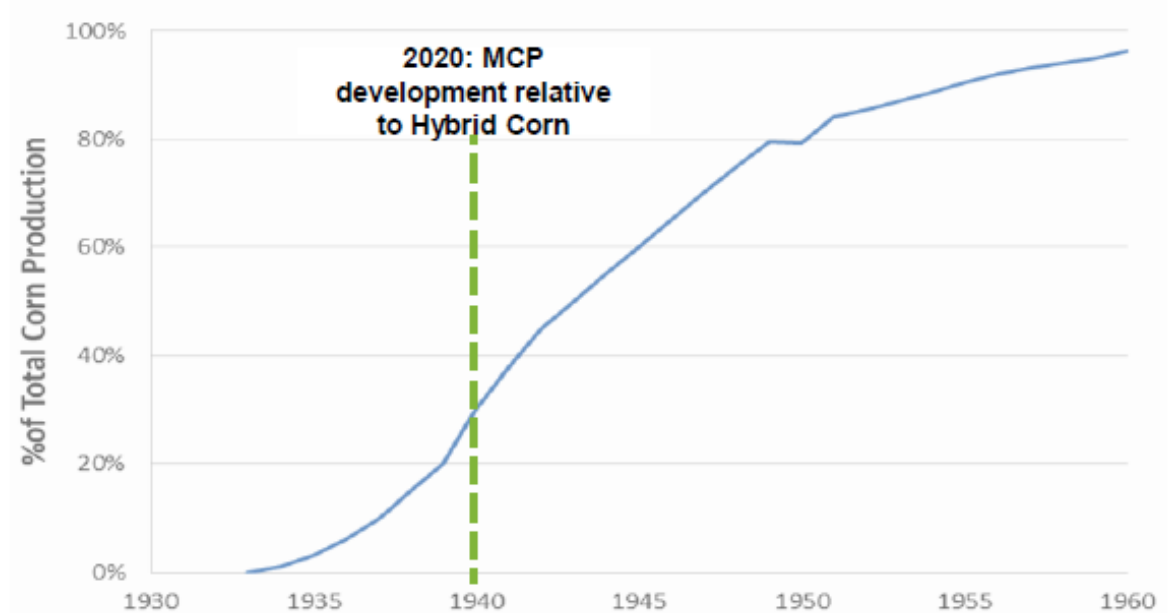
# Adoption of advanced genetics is reaching tipping point

## Adoption of MCP is on the same trajectory as Hybrid Corn

Hybrid Corn transformed agricultural productivity in the 20th Century

MCP® and other advanced genetic products will drive forest productivity in the 21st

## US MCP Loblolly Parallels with US Hybrid Corn Varieties Production



Source: NCSU CMP/MCP Industry Tree Improvement Cooperative, USDA Historical Database.

An aerial photograph of a vast, dense forest, likely a pine forest, captured during the golden hour of sunrise or sunset. The sun is low on the horizon, creating a strong, warm glow that filters through the trees, casting long shadows and highlighting the textures of the foliage. A semi-transparent dark grey rectangular box is positioned in the upper third of the image, containing the text "Our strategic position is translating into results" in a clean, white, sans-serif font.

Our strategic position is translating into results

# FY21 financial snapshot

USD \$m	FY21	FY20	% change
Revenue	52.7	56.9	-7%
Operating Earnings (before other significant items)	2.6	2.4	+8%
Net earnings <sup>1</sup> (NPAT/NLAT)	3.2	(2.7)	
EBITDA (US-GAAP) <sup>1,2,3</sup>	11.3	5.4	+109%
Net Operating Cashflow	9.9	4.8	+106%
Net Debt	27.4	29.6	-7%

- Solid year on year performance
- Pleasing result despite headwinds and challenges in 2021
- Significant improvements in net earnings, operating cashflow, EBITDA
- Positive benefit from cashflow initiatives
- Strengthened balance sheet and reduction in net debt

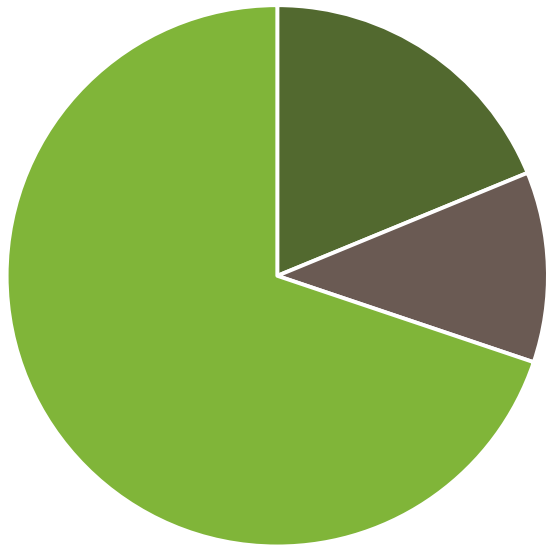
<sup>1.</sup> Includes other significant items of \$2.0 million comprising government grant subsidies of \$3.7 million, partially offset by expenses in the period of \$1.7 million relating to seedlings written-off and incremental Covid expenses incurred in the period (2020: a loss of \$3.9 million).

<sup>2.</sup> US-GAAP EBITDA is US-GAAP Earnings Before Interest, Tax, Depreciation and Amortisation. ArborGen uses US-GAAP EBITDA when discussing financial performance. This is a non-GAAP financial measure and is not recognised within IFRS. Non-GAAP financial measures should not be viewed in isolation nor considered as a substitute for measures reported in accordance with GAAP. Management believes that US-GAAP EBITDA provides useful information, as it is used internally to evaluate performance, and it is also a measure that equity analysts focus on for comparative company performance purposes, as the measure removes distortions caused by differences in asset age, depreciation policies and debt:equity structures. A reconciliation is provided in note 30 of the 31 March 2021 audited financial statements.

<sup>3.</sup> Excludes public company costs of \$1.3 million

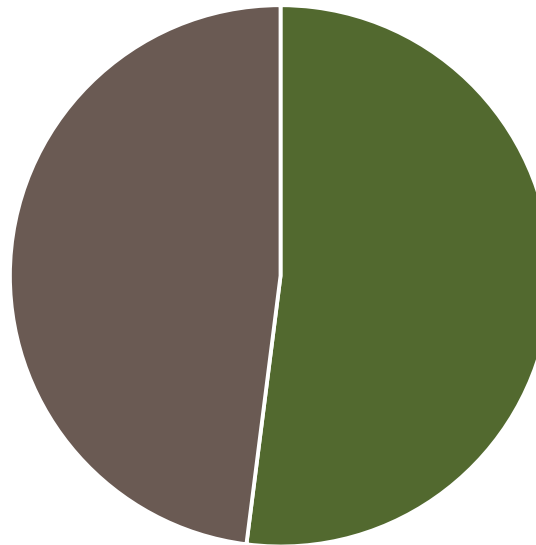
# FY21 revenue and seedling sales

Sales Revenue  
By Region



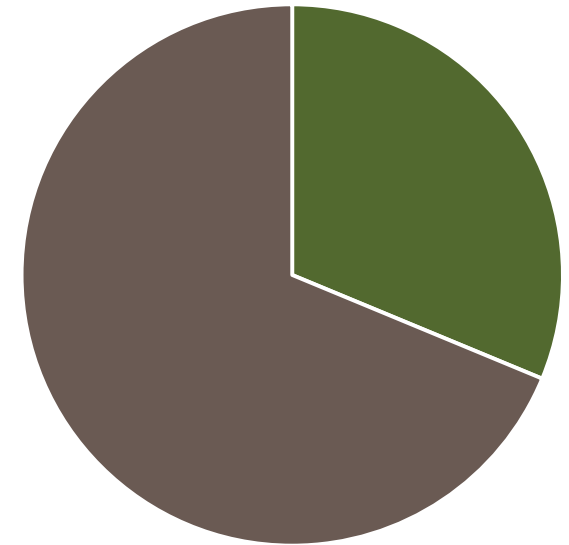
■ Australasia ■ South America ■ USA

US Loblolly pine sales  
Revenue



■ MCP & Varietals ■ Open Pollinated

US Loblolly pine sales  
Volume



■ MCP & Varietals ■ Open Pollinated



We are positioned for accelerated growth





# Macro trends are in our favour

- Strong US housing demand expected to grow over the next decade –
  - Prolonged period of underbuilding
  - Favourable demographics (average age of Americans ~30 years)
  - Ageing housing stock
- Reforestation and forestation projects to reduce carbon emissions
- Growing demand for cross laminated timber –
  - a further 200 billion more trees worldwide required by 2030 to meet projected demand
- NZ Government Policy and support of forestry, combined with aging pine plantations
- New pulp mills in Brazil, strong demand for eucalyptus based pulp and charcoal products





## We are positioned for accelerated growth

- ✓ Our advanced genetics are now proven at scale and the transformation to advanced genetics is at an inflection point
- ✓ No competitor can match our MCP program's breadth or depth, and we are continuously developing more valuable products
- ✓ Our investments in orchard expansions a decade ago significantly increasing our MCP seed supply
- ✓ Demographics, global warming and other macro-trends are providing strong tail winds
- ✓ Geographic diversity reduces risk

# Regional outlook for FY22

## United States

- Return to pre-COVID sales and operating processes
- Easing of migrant labour restrictions
- Growing adoption of MCP as value story becomes evident
- ~ 30% increase in MCP seedling supply in FY22
- Focus on increasing proportion of MCP seedlings sold
- Strong underlying demand for solid wood products in the US and structural supply constraints in Canada, the Western US and Europe, driving expansion in US South sawmill capacity

## Australasia

- Underlying demand drivers for forestry remain strong
- Continue to focus on NZ horticulture business, leveraging our expertise
- Crop species include high-value horticultural species such as hops, blueberries, rubus and tea

## South America

- Orders to date are 70% higher than this time last year
- Positive market drivers – increasing exports, new pulp mills and strong demand for eucalyptus based pulp and charcoal products
- Expansion of sales and marketing efforts
- Increased in-house production capacity and lower product costs
- Expanded advanced genetic eucalyptus portfolio

# Outlook

## Strong tailwinds for FY22

- Increased availability of proprietary MCP seedlings in US
- Improving market in all regions
- Higher demand for proprietary genetics in US and Brazil
- Return to pre-pandemic normalcy as COVID vaccine programmes are rolled out

## Beyond FY22

- Increased MCP pollination achieved in 2021 (up 35% yoy) will materially lift MCP seed volume, and in turn, MCP seedling production in fiscal year ending March 2024
- Strong housing growth and carbon credits provide significant growth opportunities
- Opportunity to extend proprietary somatic embryo capabilities, genomics and tissue culture expertise into other crop species

## FY22 guidance

Subject to any uncontrollable factors, we are targeting US-GAAP EBITDA for the current year ending March 2022 to be in the \$13 - \$14.5 million range – a material increase on FY21 US-GAAP EBITDA which included government grant income, resulting in higher cash flow and further reduction in net debt

# Contact us

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