

# The ArborGen Opportunity Presentation Materials – June 20, 2018

### ***FORWARD-LOOKING STATEMENTS***

There are statements in this Presentation that are ‘forward looking statements.’ As these forward-looking statements are predictive in nature, they are subject to a number of risks and uncertainties relating to Rubicon and ArborGen, many of which are beyond our control. As a result of the foregoing, actual results and conditions may differ materially from those expressed or implied by such statements.

In particular, ArborGen’s operations and results are significantly influenced by the general level of economic activity in the various sectors of the economies in which it competes, particularly in the United States, Brazil, New Zealand and Australia. Fluctuations in industrial output and the impact that has on global demand for wood fibre and hence harvesting and reforestation levels, government environmental and regional development policies, capital availability, relative exchange rates, interest rates, the profitability of our customers, can each have a substantial and material impact on our operations and financial condition. ArborGen-specific risks and uncertainties also include (in addition to those broad economic factors noted above) the global markets and geographies in which it operates, intellectual property protection, regulatory approvals, public and customer acceptance of genetically engineered products, the rate of customer adoption of advanced seedling products, the success of its research and development activities, weather conditions, cone and seed inventories, biological matters, and the fact that ArborGen’s annual crops and seed orchards are not the subject of insurance cover.

As a result of the foregoing, actual results and conclusions may differ materially from those expressed or implied by such statements.





# What is ArborGen's mission in life?

**To revolutionize productivity in global plantation forestry**

**... By applying advanced technology**

**... To critical tree traits**

**... To create new products that deliver 'step-changes' in tree-performance**

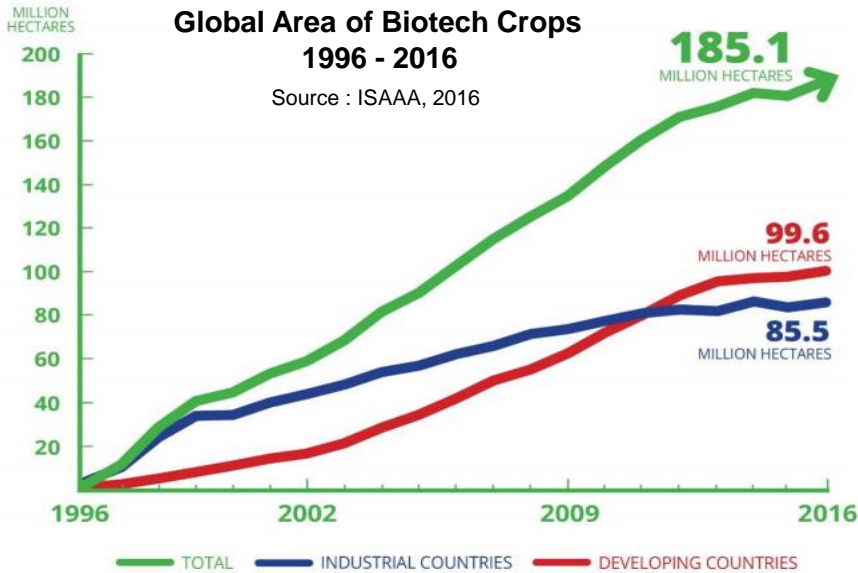




# The productivity revolution in agriculture will be repeated in forestry ... the agriculture 'winner' was the First-Mover



## Global, Widespread Need for Food



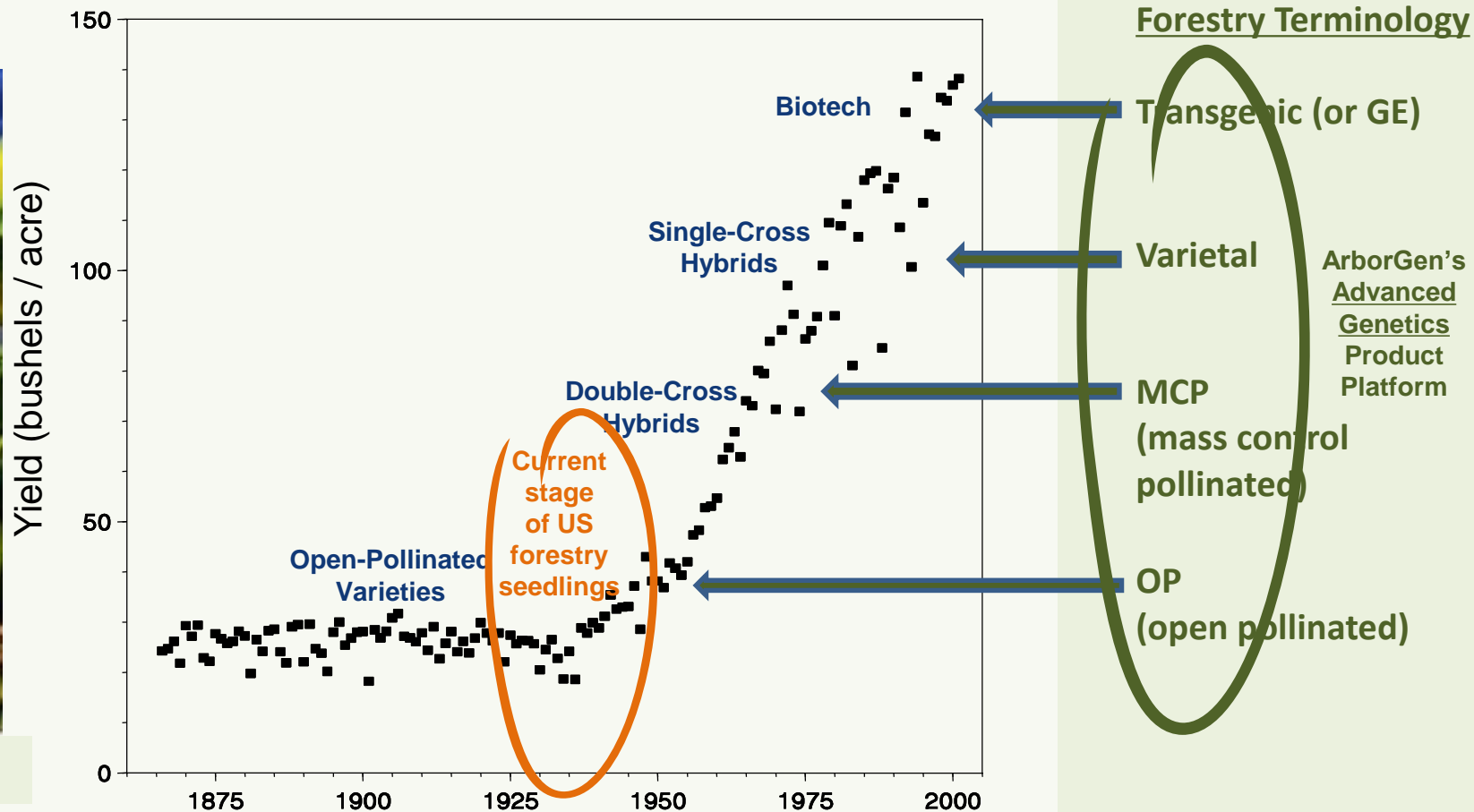
## Increasing Global Demand for Sustainably Grown Wood



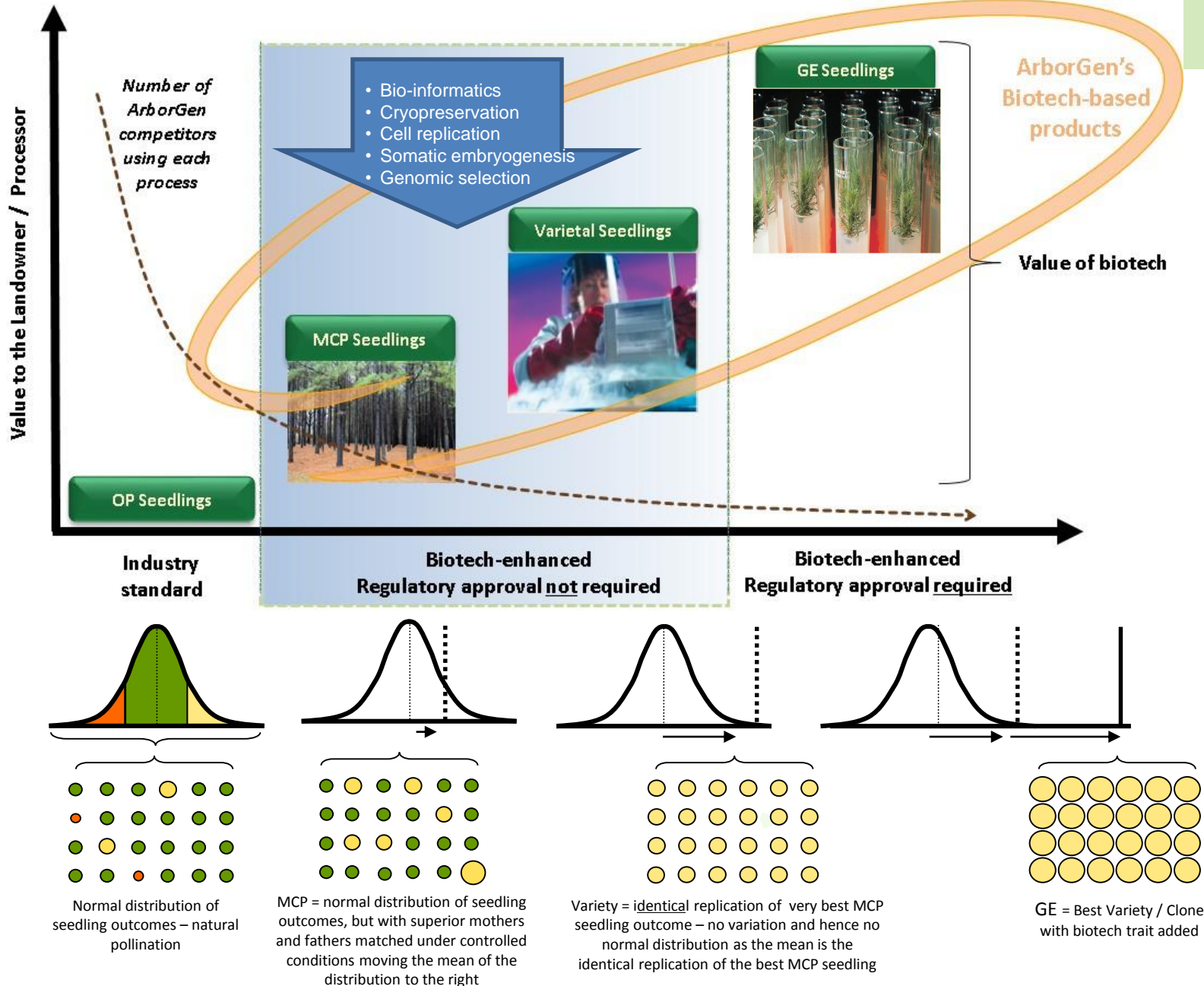
# The forestry opportunity is significant if it follows the agriculture model



- “Corn parallel” - gives insight into the opportunity for ArborGen’s advanced genetics to lift yield in forestry



Technology employed determines extent of genetic 'step-up' – its about re-shaping / breaking the normal distribution curve



- ArborGen is the only global integrated commercial player operating across the entire technology spectrum

ArborGen's current focus is on MCP and varieties, which do not require any regulatory approval process to be met

- There is only one other commercial US MCP player – ArborGen is the leading player
- There are no other US Varietal participants, as the technology is proprietary to ArborGen
- Value to the forest owner increases with each step in the technology continuum

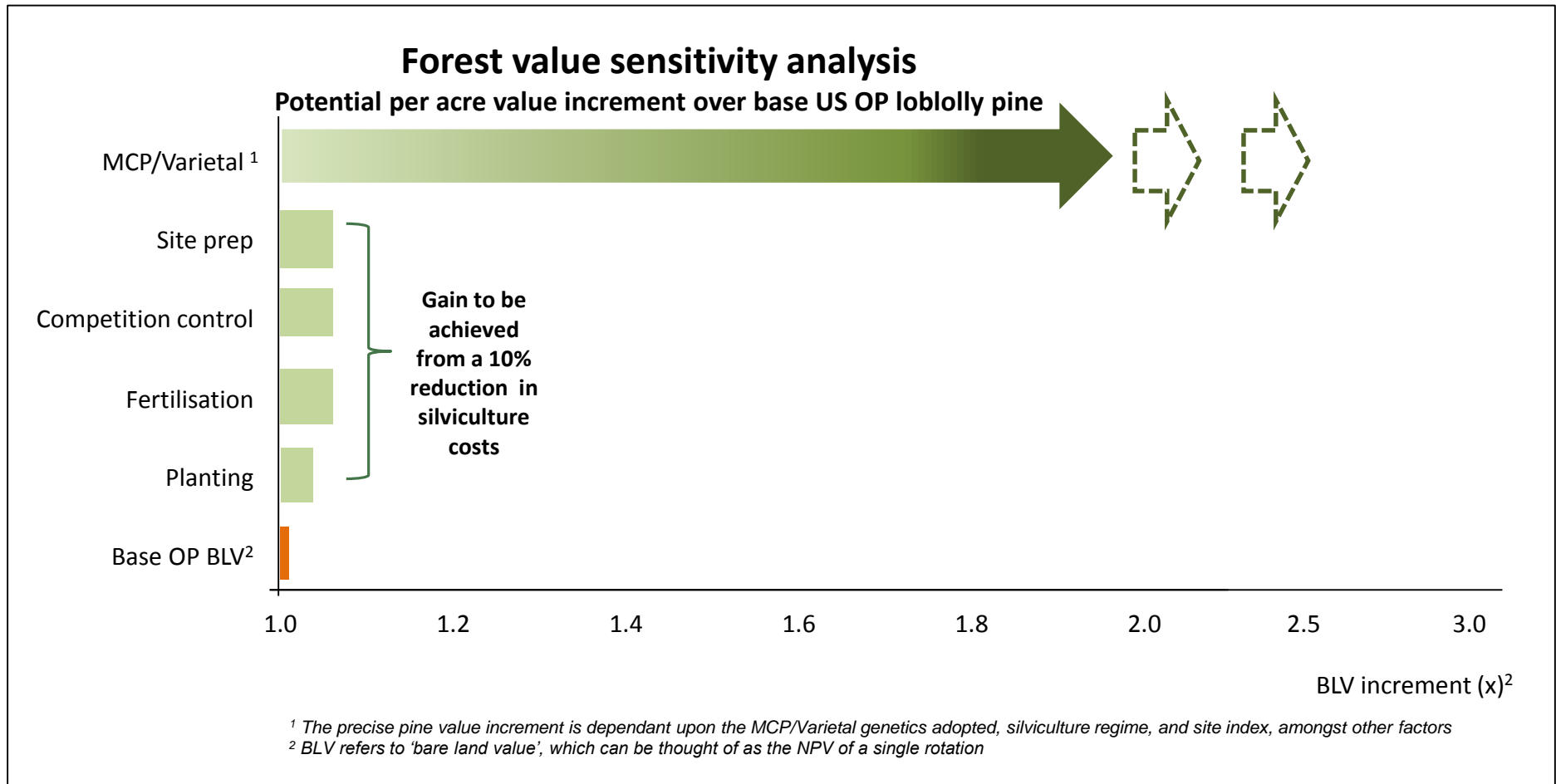




# The ArborGen Opportunity - advanced genetics is 'the' value lever



- The table below shows the value levers available to forest owners – advanced genetics is the one that 'moves the dial'

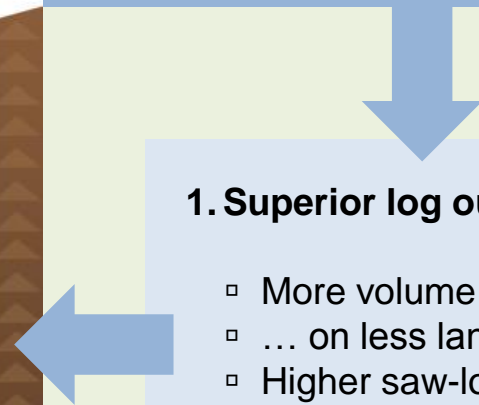


Advantages of AG’s US MCP and Varietal loblolly pine ‘genetic chips’ over industry standard OP



1. Superior log out-turns
  - More volume
  - ... on less land
  - Higher saw-log out-turn

Note: Saw-logs sell for 2.5-3x pulp logs
2. Improved uniformity
3. Shorter rotation length
4. Survival / disease resistance



INCREASING VALUE

INCREASING PERFORMANCE



# Pre-requisite #1 – the germplasm advantage

**Germplasm is critical – technology alone is an insufficient pre-condition for success**



**Germplasm repository (i.e. base genetics and superior crosses) from hundreds of years in aggregate of tree improvement by leading international forestry players**



**Federal Paper Board Co.**



## Pre-requisite #2 – the ‘tree machine’ has been built

- There are no global integrated commercial competitors to ArborGen in this arena
  - ~US\$300 million invested over 15+ years to complete the model
  - No-one else has been able to build / put in place ArborGen’s ‘end-to-end’ integrated Tree Machine platform
  - Intellectual property portfolio is secure, with ‘freedom to operate’



# Prerequisite #3 – global commercialisation channels have been built



ArborGen operates ~14 nurseries, 15 seed orchards, 30 distribution centers, and 2 R&D facilities around the world

### United States

- ~30% share of total SE loblolly pine market
- Customers include some of the largest landowners
- Producing 300+ million pa (incl ~30m non-loblolly)

Summerville, SC (Global HQ)



### New Zealand and Australia

- ~40% share of total NZ addressable market
- Customers include majority of the largest landowners in NZ
- Producing ~20 million pa
- Upside from NZ Government's 1billion 10-year tree planting program



### Brazil

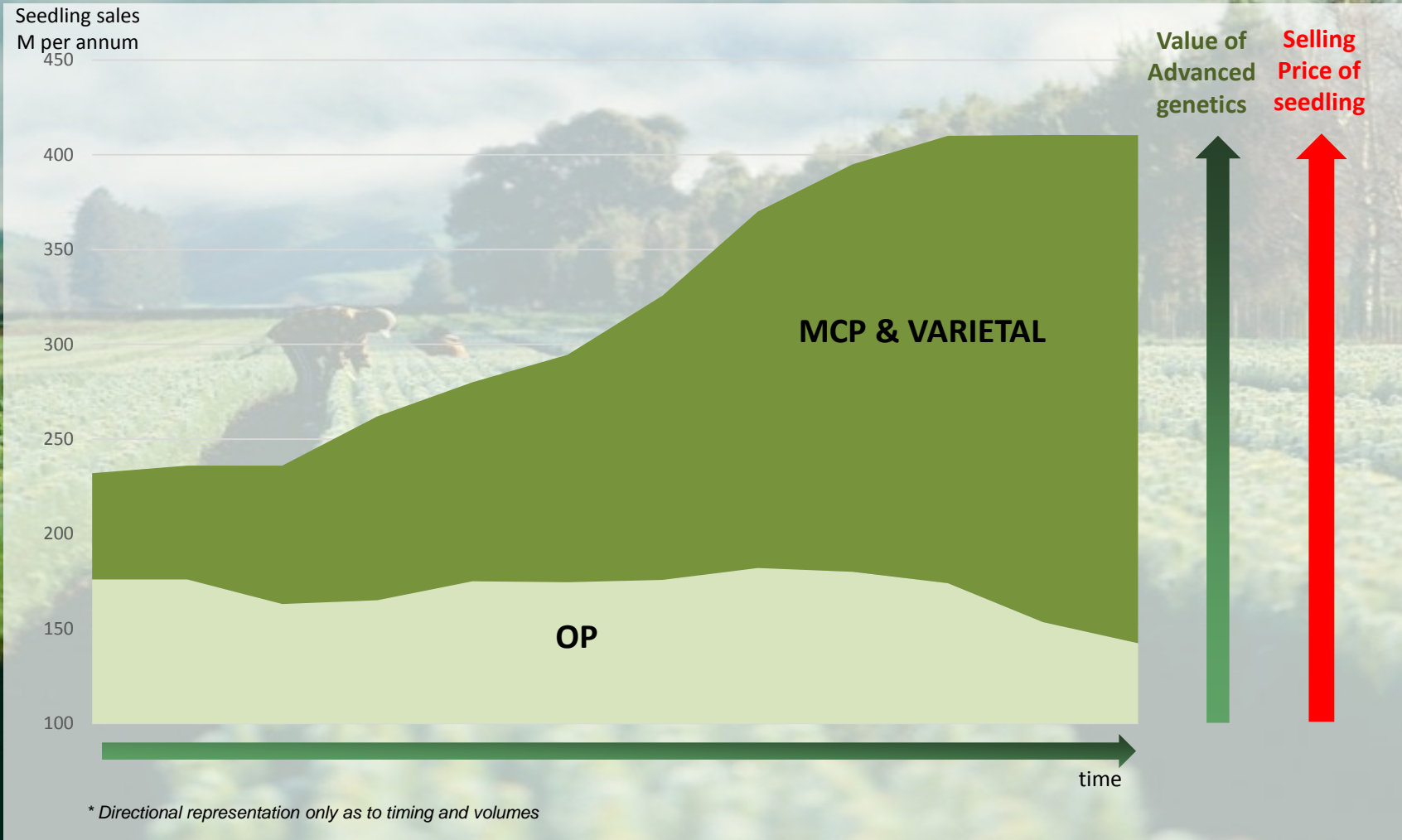
- Foothold established
- Large eucalyptus market opportunity
- Producing ~55m pa eucalyptus & pine
- ~10% of market

Campinas, SP, BR (South America HQ)





# US market advanced genetics conversion – the ‘big picture’





# US Stage 1 – moving customers from commodity OP to ArborGen's MCP products



For ArborGen, MCP-conversion is a lower-risk deliverable strategy

- **Genetics are proven**
- Compelling value-proposition for ArborGen to **up-sell existing customers** to MCP
- ArborGen **customers want the product today**
- ArborGen's existing **manufacturing process** is in place and proven
- ArborGen has an **established pricing ladder** already in place for MCP (refer slide 20)
- MCP production has **zero technology risk**
- MCP products **do not need regulatory approval**
- **Competition is limited – a new entrant would take time (amongst other things!)**
  - Would require scale manufacturing capability
  - Would need customer channels and customer relationships
  - Would require MCP product to sell!
    - Take 8+ years just to develop a commercial MCP orchard from 'standing start'
    - ... assuming you possessed the genetics to do so







# Improvement in ArborGen's financials is consistent with 'big picture' progress



Note: 2015, 2016, 2017, 2018, 2019F (forecast) refer to fiscal years ending 31 March.



## How does this all relate to the Rubicon share price?



	RBC	Annual Report Note 15	
	Current	Book value	Mid-Case
Enterprise value - US\$ m	106	170	363
<i>less</i> RBC debt <sup>1,2</sup> - US\$m	-18	-18	-18
RBC market capitalisation - US\$ m	88	152	345
<i>NZ\$:US\$ cross rate</i>	0.6900	0.7205	0.7205
RBC market capitalisation - NZ\$ m	127	211	479
<b>RBC share price implied - NZ\$ cps</b>	<b>\$ 0.26</b>	<b>\$ 0.43</b>	<b>\$ 0.98</b>
<i>% increase over the current RBC share price</i>		66%	277%



<sup>1</sup> Bank debt + capitalised finance leases, less cash at bank

<sup>2</sup> After final US\$10m deferred payment to be made (on the AG acquisition) on 1 July 2018, and receipt of US\$2.5 million from the Tenon Liquidation in calendar Q3, 2018  
Note: Ex-Cellfor shareholders have 5% warrants outstanding over ArborGen

# How can we think about book value? – i.e. + 66%



CY		CY+2	
Curr price		Book Value	
106	Implied AG value in RBC	US\$m	170
0.26	RBC share price implied	NZ\$ cps	0.43
2x	Revenue multiple CY+2	2-3x	
15.1	EBITDA multiple CY+2	10-15x	
50-55	Revenue	US\$m	68
~ 7	EBITDA	US\$m	14

CY forecast numbers

CY+2 numbers required to support book value, using mid-point of the above multiple metrics



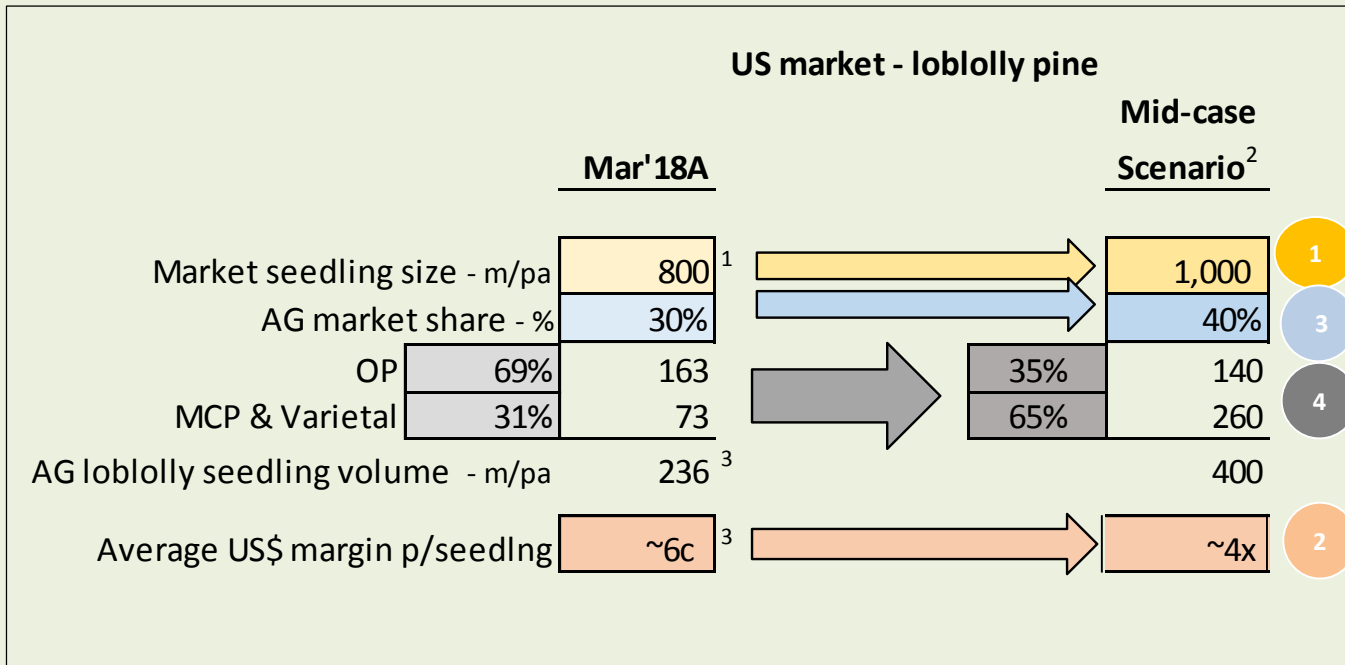
**=> We believe the Book Value of NZ 43 cps is supportable and achievable**

Note: CY means current fiscal year ending Mar 31 2019, and CY+2 means two fiscal years beyond the current fiscal year (undiscounted)

# ... And how can we think about the mid-case value?



**Note 15 to RBC Annual Report**



**=> We believe these driver assumptions are supportable and achievable**

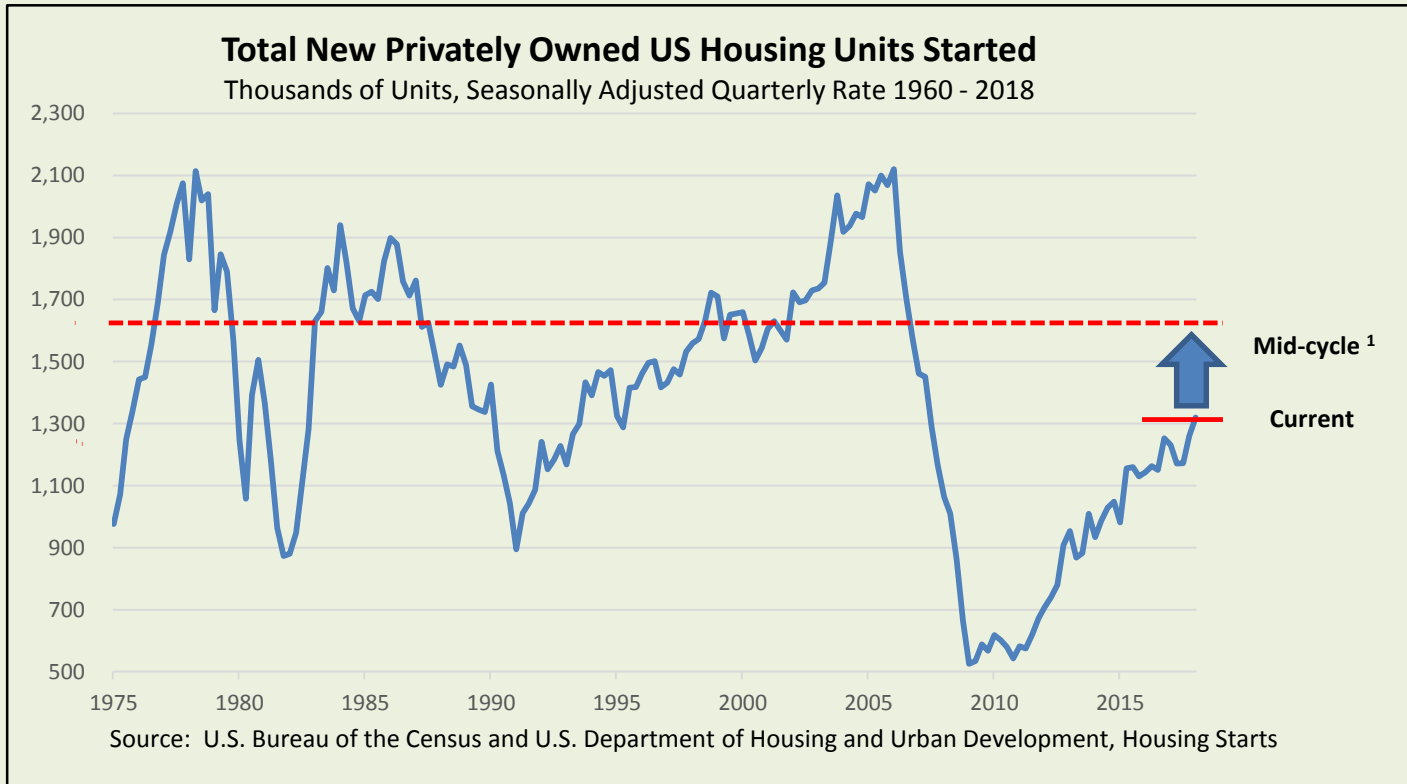
<sup>1</sup> Estimate only, as market was materially impacted by hurricanes Irma and Harvey , which distorted the last season  
<sup>2</sup> 10-year terminal point, per Note 15 to the 2018 Rubicon Annual Report  
<sup>3</sup> Excludes ~ 30 million of non-loblolly pine seedlings



# ... And how can we think about the mid-case value?

## 1 Market Size

- Unsurprisingly, the seedling market size is correlated to wood use (with a harvesting -> replant 'lag')
- Previous 'mid-cycle' market size ~1 billion per annum in loblolly pine seedlings
- **The current cycle should repeat that seedling volume pa**
- One of the key leading indicators (of wood use) is US housing starts (see chart below)
- ... and also renovation and remodelling growth with expanding US economy and retail spending
- ... and restricted (tariff-based) imports of lumber into the US



## ... And how can we think about the mid-case value?

2

### Margin p/seedling

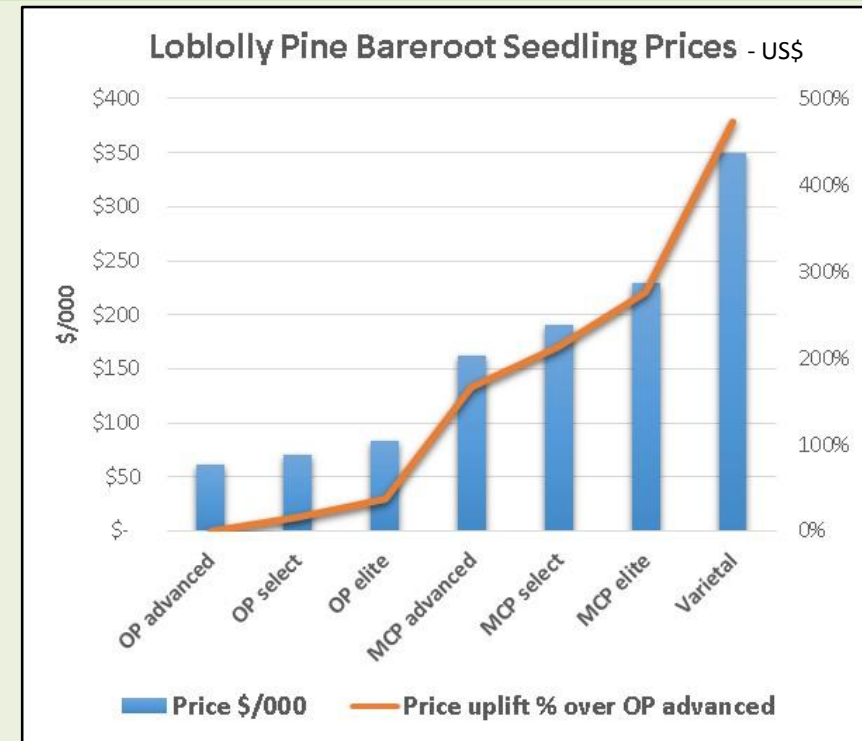


#### ■ US advanced genetics pricing ladder is already in place ...

- The industry is prepared to pay for superior genetics
- Forest owners are already paying 7x base OP prices
- The immediate focus is on MCP
- MCP pricing is 3.0 – 4.5x base OP pricing

#### ■ AG's US margin per seedling will grow with -

- Mix change
- Value share increase (as log prices recover)
- Inflation
- Incremental annual improvement in genetic-value of AG's MCP and Varietal products
- Varietals transition



#### ■ Comparisons with the more 'advanced' NZ market today are interesting ...

- Current AG bareroot MCP price in NZ is ~US\$26 cents per seedling
- Current AG bareroot MCP price in US is US\$19.5<sup>1</sup> cents per seedling

<sup>1</sup> ArborGen's MCP-select list price

... And how can we think about the mid-case value?

3

Market Share %■ **Market Share growth from 30% to 40% is a function of -**

- The value delivered to the forest grower by AG's genetics
- A portfolio of improved products in the pipeline
- The absence of any serious market competition
- AG's leadership position in production and quality
- Targeted capacity expansion in higher-growth provenances

■ **Key short-term constraint is MCP seed supply –**

- Currently selling all MCP that AG can produce in key provenances
- Supply is a constraint for the next two years
- Annual MCP supply should then move to a surplus situation
- AG's annual US growing capacity is not a constraining factor
  - Current capacity is ~330m+ loblolly seedlings pa
  - Plans are in place to increase capacity *over time* to ~400m units ... @ cost ~US\$5 million





# ... And how can we think about the mid-case value?



4

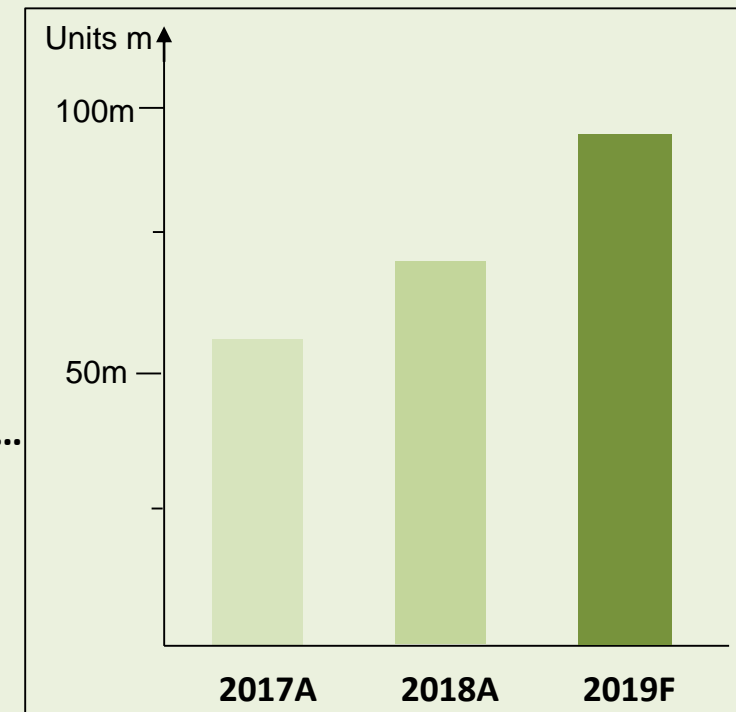
## Product Mix



- **US product-mix assumptions are not aggressive compared with NZ -**
  - NZ was an 'early adopter' of advanced genetics
  - On the basis of the NZ adoption curve, AG's US market assumption is conservative

	MCP & Varietal	
	Current	Terminal
ArborGen - NZ	80%	
ArborGen - US	31%	65%

- **To date, MCP adoption has been constrained by MCP supply**
  - This constraint is being removed (refer previous slide)
- **Recent history of growth in MCP + Varietal (combined) unit sales ...**
  - ... supports a continued advanced genetics adoption thesis

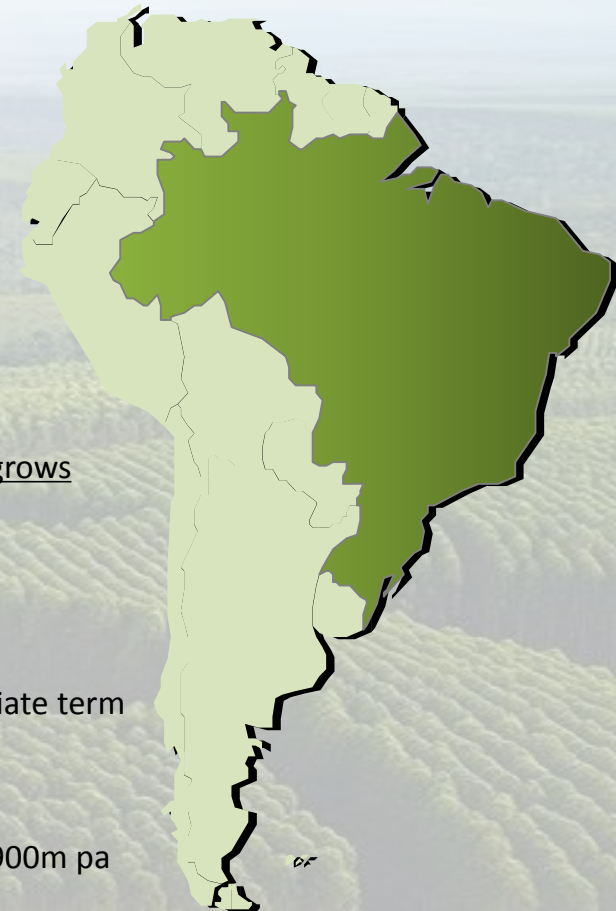


Note: 2017A, 2018A, 2019F (forecast) refer to fiscal years ending 31 March.

# Another slice: Brazil 'foothold' established - significant growth potential

## #1 Eucalyptus Varietals

- **Conditions are favorable for ArborGen to become a leading supplier of Eucalyptus varieties**
  - Non-integrated growers do not have access to advanced genetics
  - Growers are facing continued pressure to improve productivity
  - Market is under-served
- **ArborGen is well positioned**
  - Has 20-year license to sell IP Brazil's high-performance varieties in this market
  - Has production / sales rights to other clones under confidential agreements
  - Is currently developing its own superior varieties for later commercialisation
  - Sold ~50 million eucalyptus varieties in 2018 fiscal year
  - ... representing <10% of total market and <20% of the addressable market
  - ... and AG's addressable market will expand as its genetics portfolio and provenance-reach grows
- **Short-term weakness / uncertainty is expected ...**
  - Disruption with industry activity (e.g. Eldorado takeover)
  - Political and economic uncertainty
  - AG's Brazil operation will remain at the current ~EBITDA breakeven (pre R&D) in the immediate term
- **Brazil market size will recover with wider country economic recovery**
  - AG forecasts the Brazil eucalyptus seedling market to grow from ~ 600m seedlings pa to ~ 900m pa



# Another slice: Brazil 'foothold' established - significant growth potential

## #2 Loblolly Pine MCP & Varietals

- **Conditions are favourable for ArborGen to enter the loblolly market in Brazil**
  - The market lags the US in terms of maturity and availability of genetics
  - ...and is under-served
  - ... with non-integrated growers planting mostly low genetic OP seedlings
- **ArborGen's strategy for loblolly market share growth ...**
  - Leverage its own superior loblolly genetics from the US (OP elite and MCP)
  - Leverage varieties unique to Brazil (ex the CellFor acquisition)
  - Establish field trials across multiple regions to enable it to expand its provenance reach
  - Sold ~8 million seedlings in 2018 fiscal year
  - ... representing just 11% of the Brazil market currently
  - This should grow as AG expands its provenance reach and increases its 'advanced' sales
- **AG projects loblolly market to grow over next 5-10 years to ~130 million seedlings**







RUBICON

## ArborGen's Story – a one page concluding “snapshot”



- **ArborGen sits at the intersection of a growing global wood demand-supply imbalance**
- **Enhancing the productivity of forestry is the answer to this emerging imbalance ...**
- **The advanced-genetics transformation that occurred in agriculture will repeat itself in forestry**



ARBORGEN®

- **ArborGen's goal is to revolutionize productivity standards in the global forestry industry**
- **The technology revolution** that has occurred in agriculture **will also occur in forestry**
- **ArborGen is a 'first mover' in commercializing advanced forestry-genetics technologies**
- **ArborGen's technology is advanced, proprietary, and can create significant value**
- **The market opportunity is large**
- **ArborGen has a pipeline of commercial products** that do not require regulatory approvals
- **ArborGen has no commercial global integrated competitor**
- **ArborGen is the largest global provider of commercial tree seedlings**
- **ArborGen's model is lower risk** through the breadth of its product pipeline, multiple end-market uses and geographies, the full spectrum of technologies it applies, and the **existing market channels already in place**

