



Nufarm Limited  
ABN 090 323 312  
103-105 Pipe Road  
Laverton North Vic 3026  
Australia

+61 3 9282 1000  
[nufarm.com](http://nufarm.com)

3 December 2019

### **Nuseed Investor Presentation**

Nuseed Group Executive, Brent Zacharias, will today and tomorrow deliver a presentation to investors on the Nuseed seed platform and Beyond Yield output platforms. The presentation is attached for release.

For further details investors can contact Ms Nerida Mossop, Investor Relations, +61 437 361 433.

**Fiona Smith**

A handwritten signature in black ink, appearing to read 'Fiona Smith', written in a cursive style.

**Group General Counsel and Company Secretary**



High yields are just the start.

VALUE

BEYOND YIELD™

December 3, 2019



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Nufarm Limited results are reported under international Financial Reporting Standards (IFRS) including Underlying EBIT and Underlying EBITDA which are used to measure segment performance. The presentation also includes certain non-IFRS measures including Underlying net profit after tax and Gross profit margin. These measures are used internally by management to assess the performance of our business, make decisions on the allocation of our resources and assess operational management. Non-IFRS measures have not been subject to audit or review. Certain figures may be subject to rounding differences. Refer to 'Supplementary information' for the definition and calculation of non-IFRS information. All market share information in this presentation is based on management estimates based on internally available information unless otherwise indicated. All amounts are in Australian dollars unless otherwise stated.

The agriculture industry has been built from a commodity and yield mindset.

There is exceptional opportunity for agriculture to meet new global challenges.



new  
markets  
and value



ENTIRELY NEW  
SUSTAINABLE  
PLANT-BASED  
SOLUTIONS



INPUT TRAITS  
WITH  
AGRONOMIC  
BENEFITS

OUTPUT TRAITS  
WITH NEW  
CONSUMER  
BENEFITS

The **GOLDEN ERA** of  
opportunity for agriculture.



# VALUE BEYOND YIELD™

## DELIVERING PLANT-BASED SOLUTIONS

### WORLD CLASS R&D

#### Global germplasm

- Proprietary
- Trait sources



#### Molecular capabilities

- Sequencing and genetic mapping
- Breeding: marker assisted breeding/ double haploid/trait stacking and introgression/disease and trait screening
- Gene discovery



### GLOBAL SEEDS BUSINESS

- Industry collaboration
- Global market reach
- Strategic alliances
- Regionally empowered teams
- Customer focused
- Agronomic expertise
- Regulatory stewardship
- Sales in over 30 countries

### INPUT TRAITS

- Grower/agronomic benefits



Sorghum



Sunflower



Canola



Carinata

### OUTPUT TRAITS

- End-use/consumer benefits

Existing markets

### Top performing HYBRIDS

#### Proven performance

- Early stage trials
- Regional trials worldwide
- Extensive product testing
- Consumer testing

New markets

### Entirely new SOLUTIONS

#### Plant-based Omega-3 Sources



#### Healthier High Oleic Oils



#### Consumer preferences



ONYX

WHŌLIS

#### Improved Animal Nutrition

BMR Sorghum

#### Renewable Fuels



### SUSTAINABILITY

- Drought tolerance
- Low inputs
- Disease/weed management
- Carbon sequestration
- Crop rotation and diversity
- Land-based replacement to fish oil
- GHG reduction
- Feed and protein conversion

## NUSEED VALUE CHAINS

R&D → GERMPLOSM → TRAIT DEVELOPMENT → BREEDING → REGULATORY → PRODUCT TESTING → GLOBAL SEEDS BUSINESS → INDUSTRY COLLABORATION → TRACEABLE LOGISTICS → PRODUCT DELIVERY

# PLANT TRAITS & NEW MARKETS



Sunflower



Sorghum



Canola



Carinata

Start with top performing varieties and hybrids

Input traits with agronomic benefits

Output traits for specific end-use benefits

Create new market and value chain opportunities

# CORE CROP OVERVIEW



## Canola

- #1 canola seed position in Australia
- Top 5 position globally
- Range of novel oil positions
- Currently executing growth strategy into high value Canada, Europe and Latin America markets
- Best in class canola traits capability



## Carinata

- Proprietary global position
- Novel industrial oil
- Best in class greenhouse gas reduction
- South American expansion
- Unique downstream application
- High non-GMO protein source



## Sorghum

- Top 3 position globally
- Strength in food, feed and fuel
- Recently introduced ultra early sorghum category
- Human and animal nutrition traits
- Leading efforts to link agronomic performance, new cropping patterns and high yield potential
- Brazil, USA, Argentina are key target geographies



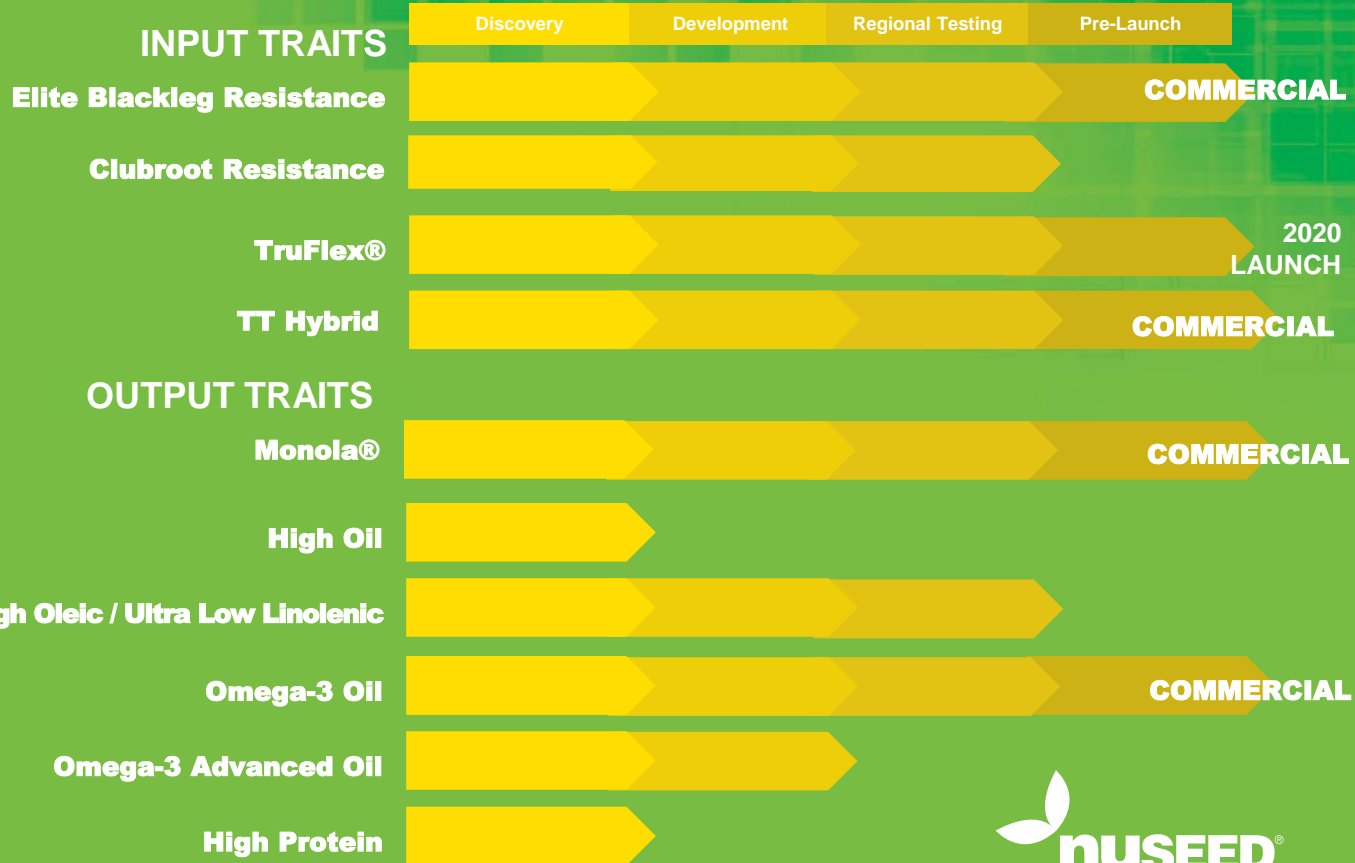
## Sunflower

- Global leader in the high value food ingredient segment
- Top 5 position globally
- Growth in proprietary categories & stacked traits
- Unique offerings enable stronger market entry with broad portfolio
- Strong volume growth trajectory
- European markets experiencing high growth





# Canola







# Sorghum

## INPUT TRAITS

Discovery

Development

Regional Testing

Pre-Launch

**Ultra-early Grain**

**COMMERCIAL**

**Anthraxnose**

**SCA Tolerance**

**COMMERCIAL**

**Herbicide Tolerance**

## OUTPUT TRAITS

**Bio Energy**

**Improved Feed**

**Human Nutrition**

**COMMERCIAL**



# Sunflower

## INPUT TRAITS

Discovery

Development

Regional Testing

Pre-Launch

**Elite Stacked Disease Resistance**

**COMMERCIAL**

**Elite Orobanche Resistance**

**Ultra Early**

**COMMERCIAL**

## OUTPUT TRAITS

**Ultra High Oleic & Low Sat**

**XXL Elite Confection**

**COMMERCIAL**

**Onyx/Black Confection**

**COMMERCIAL**

# NUSEED OMEGA-3 CANOLA

First plant-based solution to global  
omega-3 nutrient demand

A globally sustainable plant-based  
aquafeed source

Relieve pressure on wild fish stocks

Nuseed Value Chain

US commercial production for  
Aquaterra™, Nuseed's proprietary  
aquafeed ingredient

Nutriterra™ developed for human nutrition



  
aquaterra™



# Market Development Work Complete

## Nofima Study\*

Fresh water and sea water tank trials to ~1.5 kg with replacement of fish and canola oil

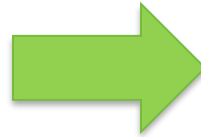
Aquaterra™ oil in feed for salmon replacing up to 100% of fish oils; and boosting omega 3 content 2X from standards:

- Health markers indicate it's safe for use in feed
- Provides similar growth as fish oil
- Results in better skin and fillet color
- Delivers good survival of fish
- Shows an increased concentration of the health promoting resolvins in plasma
- Higher inclusion resulted in increased levels of ALA, DHA, EPA, DPA and improved ratio of Omega 3 / Omega 6

\*British Journal of Nutrition, September 2019

*Omega-3 canola oil effectively replaces fish oil as a new safe dietary source of docosahexaenoic acid (DHA) in feed for juvenile Atlantic salmon*

[Bente Ruyter](#) (a1), [Nini H. Sissener](#) (a2), [Tone-Kari Østbye](#) (a1), [Cedric J. Simon](#) (a3), et al.



## Chile Production Trials

Scaled Production pilots with 5 farm / feed partners and **>1 Million salmon fed** Aquaterra diets

Aquaterra™ replacing 30-60% of fish oil in salmon feed at full sea cycle; or ~1.5 kg to harvest size ~5 kg:

- Results to date confirm Nofima findings
- Equivalent growth, feed conversion, survivability
- Fillet absorption of DHA+EPA equivalent to fish oil
- Improved fillet color
- Salmon fillet taste, odor, color equivalent to fish fed fish oil diets (accredited taste panel)
- Ease of use in feed production validated

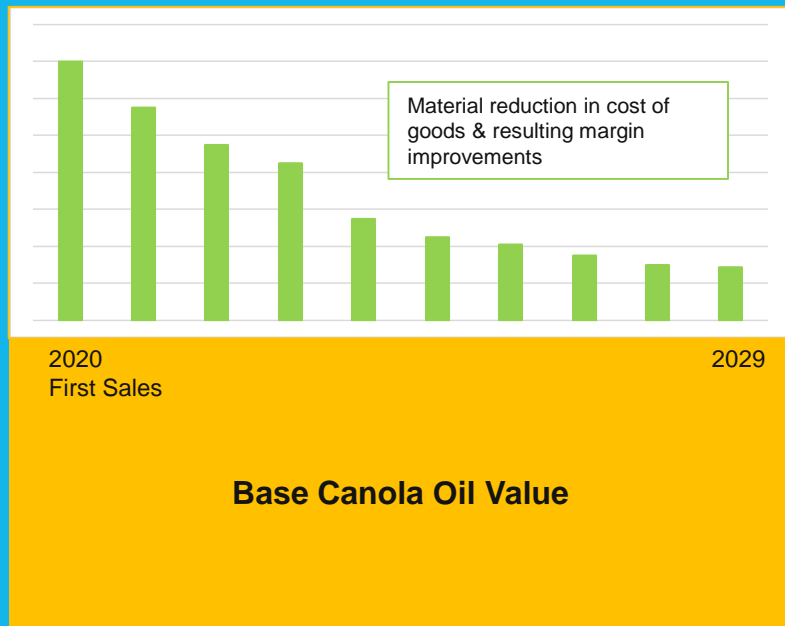


# First to Commercialize Land Based Omega-3

- 2019 harvest complete of ~35k acres in US
- LOI stage of contract discussions with prospective customers
- 1<sup>st</sup> Commercial scale crush targeted 1Q20
- 1<sup>st</sup> Commercial volume offtake - anticipated by 2Q20
- Advancing scale-up for 2021+ with improved agronomics and expanded animal and human consumption markets
- Strong progress on regulatory filings: FDA, CFIA, Health Canada imminent
- Achieved Excellence Through Stewardship (ETS) audit approval in USA
- Ability to scale to fully meet customer demand signals



## Scale, regulatory approvals & genetics: Impact to cost & resulting margin generation



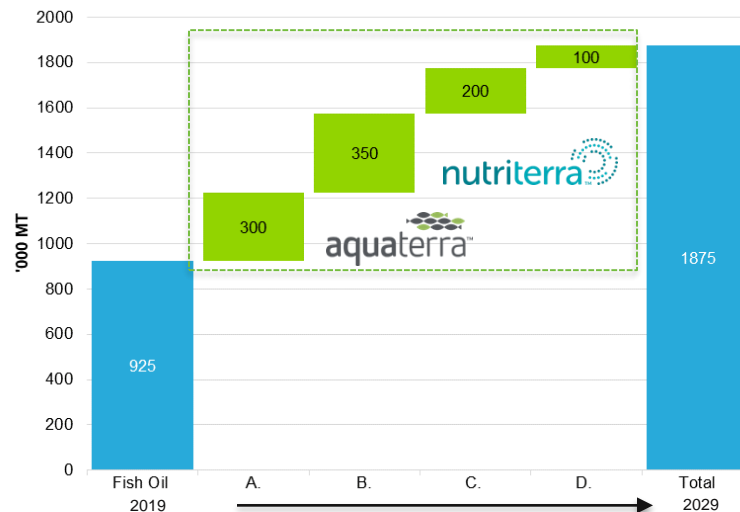
### Majority of cost & scale benefits inside 4 years:

- Reduction of cost of goods via scale, hybrid performance, stewardship efficiency
- New supply chain partnerships & production expansion
- Continuous global regulatory approvals

### Guidance:

- Revenue FY20
- EBITDA positive FY21
- Step change in margins and EBITDA by 2024
- Each 1% share of future supply deficit (unconstrained market growth) to 2028/29 market = \$8.5M AUD expected EBITDA\*
- Ability to scale rapidly to meet market demand

## Unconstrained market growth potential 200%+ current world supply



### Market driver assumptions\*:

**Fish Oil:** Supply & demand currently balanced at approximately 925,000 MT per annum

- Increase in aquaculture demand of 3-5% constant growth. Current global base demand of omega 3 oils for aquafeed grows from 600k MT to 900K MT by 2029
- Omega 3 fatty acid inclusion in salmon and trout feed has decreased from approximately 6% to 1.5% since 2008. New recommendations to return to at least 3% for fish health and consumer benefit = 350,000 MT new potential demand (Nofima research)
- Expanded pharmaceutical uses: FDA use approval of a single Omega 3 pharmaceutical Vascepa® to 10X patient population (ReduceIT study Amarin); other novel Omega 3 products in pipeline development with several companies
- New human nutrition applications: Asia, India, other (Healthy China plan 2030)

**Impact:** Assume continued but stabilized fish oil price appreciation of 3%+ per annum

**Benefits:** Unconstrained supply & Prevention of hyper inflation

# Omega 3 Intellectual Property Estate

- Nuseed commercialisation enabled
- Protection of our technology blueprint
- Competitive barriers
- First jury verdict (USA 2019)

MORE THAN



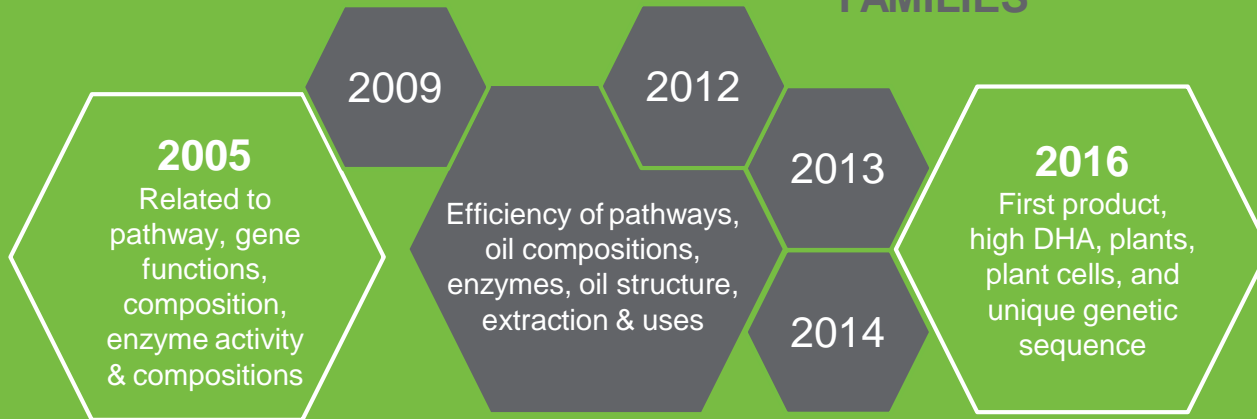
IP ESTATE  
FAMILIES



PATENTS



PATENTS  
PENDING



## Omega-3 canola represents a compelling example of the value beyond yield strategy in action

-  Omega-3 canola model is a unique product targeting multiple downstream markets with **significant supply constraints**
-  High value proposition with **captive customer base**
-  **Significant R&D investment and capability** in product development, with **reduced capital expenditure** required going forward
-  Collaboration with customer base exemplifies the partnership model; **Nuseed is more than just a supplier**
-  Management of distribution channel **through direct interaction with end users** (fish feed formulators and farmers)





# Carinata:



## Nuseed acquired technology (from Agrisoma Nov 2019)

- Certain assets including proprietary germplasm, patents, regulatory data and key personnel
- Nuseed has been testing and developing the crop over the last 2 years in South America under sustainable certification systems
- Leveraging 10+ years of R&D

## Carinata: a proven commercial crop

- Brassica species (similar to canola)
- Naturally more water efficient and tolerant to heat and drought
- High oil and protein content
- Industrial oil profile
- Ideally suited carbon saving cover crop - high biomass and tap root
- Grown on >50,000 hectares in LAS and USA in last 3 years
- Verified to meet European Renewable Energy Directive (RED) biofuel standards
- High yielding (2 MT of grain / Ha in cover crop systems following soy)

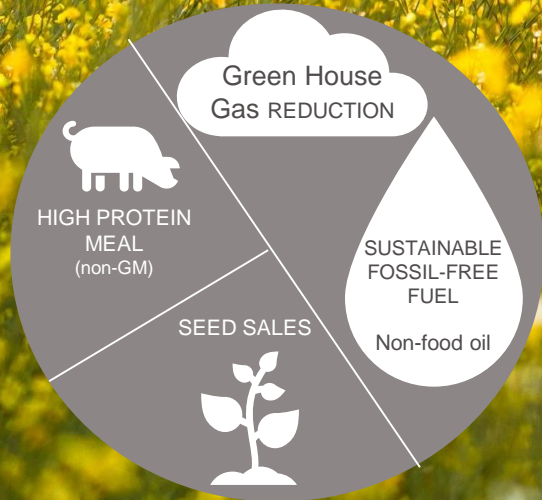
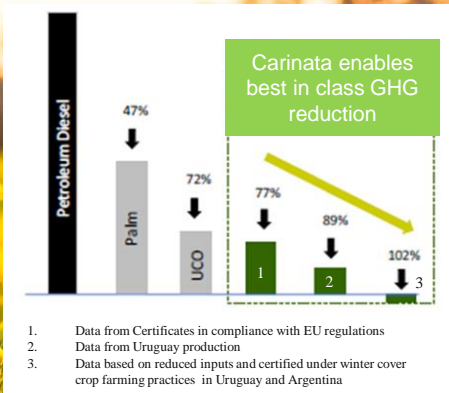


# VALUE

## BEYOND YIELD™



CERTIFIED SUSTAINABLE  
by independent, highly-credible  
world-class sustainability  
certification organizations



## CARINATA VALUE DRIVERS

- Fossil-free fuel solution
- Carbon reduction + sequestration
- Best in class Green House Gas (GHG) reductions up to 100% vs petroleum
- Meets renewable Biojet standards
- Grown between crop rotations
- Non-competitive with food production
- Leverage existing canola R&D capabilities (both in brassica family)
- Proprietary seed revenue source, highly scalable
- New source of high protein meal for animal feed

## FIRST GENERATION BIODIESEL

Industry process technology:

- Fatty Acid Methyl Esters (FAME)

**\$24B USD Downstream value**

**28M MT Oil volume**

Continued growth

Carinata benefit:

- Best in class GHG and sustainability premium
- Non-food, indirect land use
- Economic value improvement

## SECOND GENERATION ADVANCED BIOFUELS

Industry process technology:

- Hydrotreated Vegetable Oil (HVO)
- Same chemical structure and octane as fossil fuel

**\$13B USD Downstream value**

**7M MT Oil volume (est. 2020)**

Rapid facility expansion

Carinata benefit:

- Best in class GHG and sustainability premium
- Scalable biojet, renewable diesel, and advanced lubricants
- Overcome feedstock supply constraint

NEAR TERM 2021

>50,000 HECTARES

>40,000 MT OIL

MEDIUM TERM 2024-2025

>250,000 HECTARES

>200,000 MT OIL

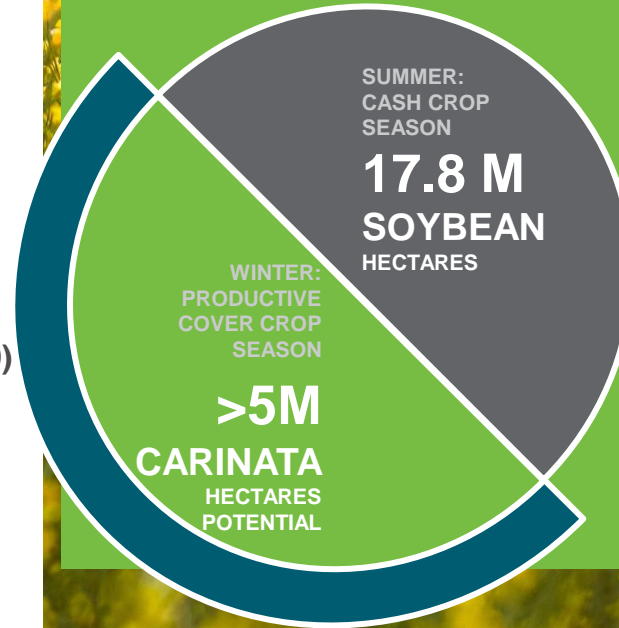
## ARGENTINA

Regulatory approved

## CARINATA SUPPLY DEVELOPMENT

## BRAZIL

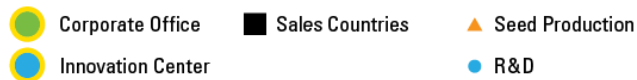
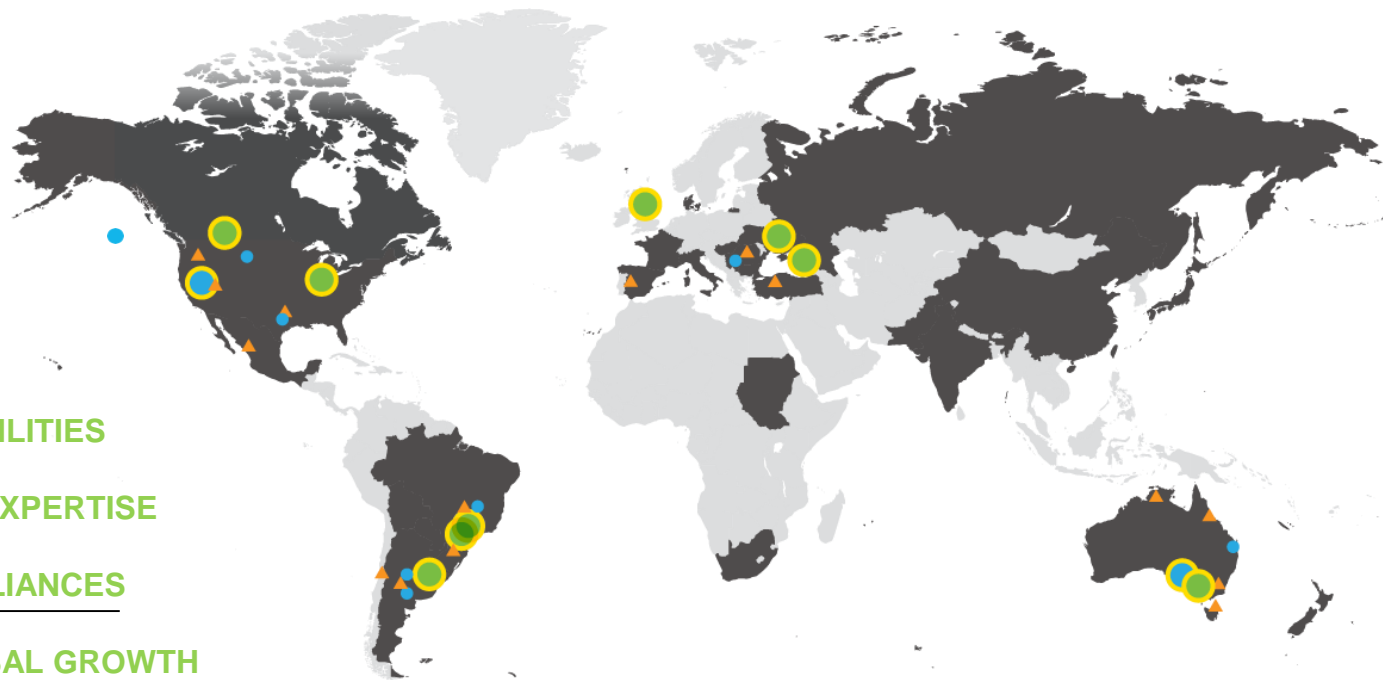
Regulatory process underway



# NUSEED AROUND THE WORLD

GLOBAL CAPABILITIES  
+  
DEDICATION AND EXPERTISE  
+  
STRATEGIC ALLIANCES

ACCELERATED GLOBAL GROWTH  
MARKET EXPANSION



## NUSEED VALUE CHAINS

R&D → GERMPLASM → TRAIT DEVELOPMENT → BREEDING → REGULATORY → PRODUCT TESTING → GLOBAL SEEDS BUSINESS → INDUSTRY COLLABORATION → TRACEABLE LOGISTICS → PRODUCT DELIVERY

# KEY HIGHLIGHTS

- 1 — Attractive scaled platform with an established, global footprint and capability
- 2 — Market leading positions in key crops
- 3 — Significant product pipeline
- 4 — The unique Omega-3 canola product represents a significant opportunity to address a market in growing deficit
- 5 — A new Value Beyond Yield opportunity in carinata
- 6 — Outstanding expected growth profile, with multiple drivers
- 7 — Well credentialed and motivated management team



# Nufarm and Nuseed

- Nuseed is a wholly-owned subsidiary of Nufarm Limited (ASX: NUF)
- Nufarm has manufacturing and marketing operations throughout Australia, New Zealand, Asia, the Americas and Europe and sells products in more than 100 countries around the world

