

## RESEARCH REPORT

## Duxton Farms Ltd

Diversification is Key

Price Target	\$1.49
Share Price	\$1.32
Implied Return	12.9%

## Duxton Farms – the only publicly listed mixed farming enterprise

- Duxton Farms (ASX:DBF) is the only publicly listed farming enterprise in Australia that cultivates both crops and livestock. On average, since their IPO, crops have made up approximately 85% of all revenue, whilst livestock has made up roughly 15%. The ability to branch into various crops and/or livestock, allows for the diversification of income streams, reducing the reliance on a single crop or livestock species, thereby minimising the risks associated with market fluctuations or weather-related events that can affect yields and production.
- The Company also looks to capitalise on improved farmland values over time, through aggregation and development on what the Company believes to be mispriced land.
- Over the near term, the Company will expand on its existing NSW focused farm portfolio and incorporate two new leases. Mountain Valley Station, located in Northern Territory, triples the Company's exposure to cattle, and Piambe Farms, located in Victoria, adds to its existing crop profile.
- Based on our current forecasts, we derive a DCF equity value for DBF of \$1.49 per share.

### Earnings Estimates

		FY21	FY22	FY23F	FY24F	FY25F
<b>Sales</b>	\$m	17.8	16.6	8.1	28.0	26.3
<b>growth</b>	%		-7%	-52%	247%	-6%
<b>EBITDA</b>	\$m	3.4	-3.3	-7.1	5.2	4.3
<b>EBIT</b>	\$m	2.4	-4.3	-8.7	3.5	2.6
<b>margin</b>	%	13%	-26%	-108%	13%	10%
<b>PBT</b>	\$m	1.3	-5.2	-10.4	1.6	0.3
<b>Adj NPAT</b>	\$m	1.4	-3.2	-7.8	1.2	0.2
<b>Margin</b>	%	8%	-19%	-97%	4%	1%
<b>Adj EPS</b>	cps	0.0	-0.1	-0.2	0.0	0.0
<b>PE</b>	x	39.2	-17.4	-7.0	45.6	235.8
<b>DPS</b>	cps	6	n/a	n/a	n/a	0
<b>Payout</b>	%	189%	n/a	n/a	n/a	60%
<b>Div yield</b>	%	4%	n/a	n/a	n/a	0%

Source: Company data and Personal estimates

All figures in AUD unless stated otherwise

Peter Milios

peter.milios@corporateconnect.com.au

### Company Data

ASX code	DBF
ASX price	\$1.32
Shares on issue	41.7m
Market capitalisation	\$57.95m
Cash on hand	\$1.175m <sup>1</sup>
12-month price range	\$1.30 – \$1.95
ASX turnover (3m avg. daily vol.)	14,278

<sup>1</sup> Cash = Latest reported balance (1H FY2023)

### Key Personnel

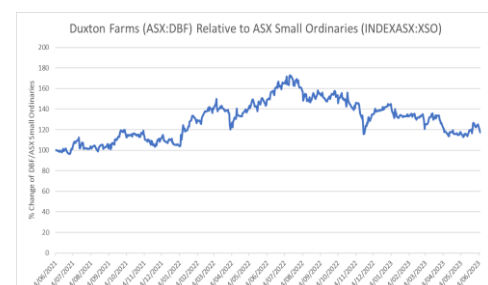
Ed Peter	Group Chairman
Bryan Goldsmith	General Manager
Stephen Duerden	Non-Executive Director

### Major Shareholders

Richard Magides	23.46%
Ed Peter	18.19%
DWS Investment GmbH	16.8%
MLC Investments Ltd.	1.20%

Source: FactSet

### Price Chart (ASX:DBF)



Source: FactSet

## Duxton Farms Ltd

Diversification is Key

### Investment Summary

Duxton Farms (ASX:DBF) is a mixed farming business, with a portfolio of assets spread across Australia, but with a heavy focus on NSW cropping properties. The Company's core focus is their exposure to both dry land and irrigated farming, providing a range of summer and winter crops – mainly cotton, wheat, barley and canola. Livestock, in the form of cattle and sheep, also delivers additional forms of revenue for Duxton Farms.

Through the sale of agricultural commodities and livestock, as well as capital appreciation on land, Duxton Farms seeks to generate sustainable returns for investors.

#### **Diversification of Geographic Regions, Crops, Production Systems, and Water Sources:**

- A key driver of Duxton Farms' investment rationale includes purchasing and developing land. The Company's core aggregation is in NSW but has recently expanded into Northern Territory and Victoria, with further plans to expand elsewhere. The moves look to diversify against the effects of adverse climactic conditions on production.
- By cultivating a variety of both summer and winter crops, the Company can mitigate the risks associated with dryland cropping in one region of Australia (including adverse weather conditions, shifts in consumer demand, and fluctuations in grain prices) by introducing new geographies, production systems and commodity types to the portfolio. By operating both dry and irrigated farming systems, the Company is in a position to mitigate the risk of drought, as well as unfavourable fluctuations in water pricing and other irrigation costs (mainly cost of electricity or fuel).
- The Company's multiple water sources, including groundwater, river water and water storage facilities, mitigates the risk of "zero water allocations" and drought.

#### **Global Metrics Leading to a Rise in Grain Consumption:**

- The world population is expected to grow from 8 billion in 2022 to 8.5 billion in 2030 and then 9.7 billion in 2050, whilst global GDP and per capita income over the next decade is expected to grow at rates of 2.7% and 1.8% respectively.
- Metrics including forecasted population growth, increases in the middle class of emerging economies, as well as growth in GDP and per capita income increases the demand for food, hence, enhancing the production of agricultural commodities, including wheat, barley, canola. This has a compounding effect, with each individual having more purchasing power.
- The growth of these metrics has several effects on emerging economies:
  - As incomes rise, eating patterns shift to more westernised diets and traditional staple foods, such as rice, being increasingly substituted for other grains, meat, and dairy products.
  - The rates of direct consumption increase and indirect consumption – as feedstock for other products.

#### **Investments in Agriculture Compared to Other Investments:**

- Farmland investment offers both capital and operational gains by leveraging the appreciation in the land's value and the revenue generated from the sale of the commodity produced.
- Farmland value has grown by a compound annual growth rate (CAGR) of 8.4% over the past 20 years. The ASX200 has a CAGR of 4% over that same period, whilst residential properties in Australian capital cities have a CAGR of 5.4%.

#### **Consolidation Opportunities:**

- On average, the size of Australian farms has expanded over the last four decades. The number of large farms has increased while the number of small and medium farms has declined.
- As smaller family farms exit the industry, there is a greater opportunity to purchase and aggregate land into a corporate farming business.

Over the next 12-24 months, Duxton Farms will also be incorporating the two new leases – Mountain Valley Station and Piambe Farms, that were made in the middle of FY23. The farms will initially be capital intensive, however, will provide additional forms of revenue as an extension of their current profile. Mountain Valley Station is predominately a cattle station; however, it remains to be seen what clearing and planting can be done. We believe the Company will extend on this cattle farm and use it to harvest cotton. It is important to note that the Company has an option to purchase Piambe Farms in July. We believe this will be executed.

## Duxton Farms Ltd

Diversification is Key

### Brief History

To understand the Duxton Farms story, it is important to outlay the extensive depth and subsequent support system of the Company.

Duxton Farms is a part of large portfolio managed by Duxton Capital (Australia) Pty Ltd, the Australian arm of an international, alternative asset management firm, Duxton Asset Management Pte Ltd (DAM), which was spun out of Deutsche Bank Asset Management's Singapore-based Complex Assets division in 2009.

DAM currently operates out of in Singapore and Australia. The headquarters is in Stirling, South Australia.

Formed in June of 2013, Duxton Capital (Australia) provides bespoke investment solutions and services, to clients in Australia, with a large focus on direct agricultural private equity investments within Australia.

A brief timeline of the Duxton Capital's (Australia) activities since opening is as followed:

- Duxton Dairies (Cobram) established in 2014 as a private equity project.
- Duxton Vineyards established in 2015 as a private equity project.
- Duxton Water spun out of Duxton Vineyards and listed on the ASX in 2016.
- Duxton Orchards established in 2016 as a private equity project.
- Duxton Dried Fruits established in 2017 as a private equity project.
- Duxton Farms restructured and listed on the ASX in 2018 (as *Duxton Broadacre Farms* (ASX:DBF)).
- Duxton Capital (Australia) raises first institutional capital into Duxton Vineyards.
- Duxton Nuts established in 2019 as a private equity project.
- Duxton Bees established in 2020 as a private equity project.
- Duxton Pubs established in 2020 as a private equity project.
- Duxton Diversified Agriculture Fund launched in 2022 as a diversified wholesale fund.

It is important to note that these companies manage the assets they own. For example, Duxton Farms manages their portfolio of farms.

Duxton Capital (Australia) acts as the Investment Manager of Duxton Farms.

The Investment Manager's role is to: identify, assess, propose and execute the broadacre investments (subject to Board approval).

## Duxton Farms Ltd

Diversification is Key

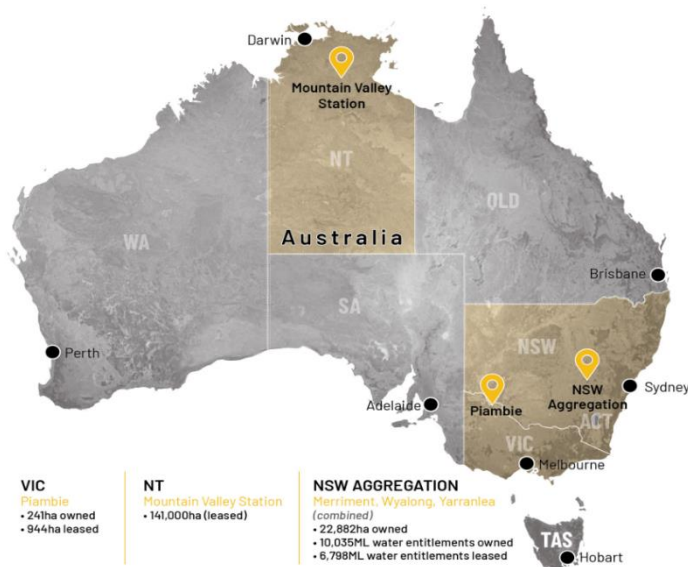
### Business Overview

Duxton Farms' core business operations consists of planting and harvesting a selection of winter and summer crops across their farms within NSW.

Additionally, the business has a livestock programme, which is a complement to the cropping program.

### Assets

**Figure 1: Properties of Duxton Farms**



**Source:** Company Data

Duxton Farms' core aggregation is located in the Central West of New South Wales and consists of 8 properties totalling 22,882 hectares of prime broadacre farming country.

In FY2023, the Company expanded its portfolio to include properties in the Northern Territory (Mountain Valley Station) and Victoria (Piambie Farms).

All in all, Duxton Farms' agricultural assets equate to 165,067 hectares.

**Figure 2: Land Classification and Crop Production Profile**

Property	Land Classifications				Crop Production Profile	
	Arable (ha)	Irrigable (ha)	Support and Remnant (ha)	Total (ha)	Summer	Winter
Walla Wallah	411	939	50	1,400	Cotton, fodder	Grains, oilseeds, pulses, fodder
Cowaribin	594	281	65	940	Fodder	Grains, oilseeds, pulses, fodder
Merrimint	148	367	20	535	Cotton, fodder	Grains, oilseeds, pulses, fodder
Timberscombe	7,850	-	582	8,432	N/A	Grains, oilseeds, pulses
Kentucky	4,911	367	636	5,914	Fodder	Grains, oilseeds, pulses
Yarranlea	1,394	560	230	2,184	Cotton	Grains, oilseeds, pulses
West Plains	1,178	450	80	1,708	Cotton, fodder	Grains, oilseeds, pulses, fodder
Lenborough	554	189	25	768	Cotton, fodder	Grains, oilseeds, pulses, fodder
Piambie	-	935	248	1,183	Cotton, fodder	Grains, oilseeds, pulses, fodder
Mountain Valley Station	-	-	141,000	141,000	Cotton, fodder	Fodder
<b>Total</b>	<b>17,040</b>	<b>4,088</b>	<b>142,936</b>	<b>164,064</b>		

**Source:** Company Data

## Duxton Farms Ltd

Diversification is Key

### Victoria

On the 12<sup>th</sup> of September 2022, Duxton Farms agreed to buy two Victoria properties (Piambie Farms) for \$9m. The first stage involves purchasing "Glen Innes" for A\$1.6m with an expected completion date in December 2022. The second stage, "Piambie," includes an option agreement and operating lease for ongoing possession and has a total price of A\$7m. The lease will begin in January 2023 and the option is exercisable from July 2023.

Duxton will continue the cropping programme for irrigated canola and wheat at Piambie Farms, as part of its strategy to diversify the portfolio and stabilise earnings. The Board may also explore expanding into permanent horticulture in the future.

### Northern Territory

On the 9<sup>th</sup> of November 2022, Duxton Farms announced that it has signed a five-year lease to operate Mountain Valley Station a 141,000-hectare cattle station. As part of the transaction, the Company will acquire ~2,700 head of cattle and all necessary P&E currently on station, while retaining the current management as part of the Duxton Farms team. The Company also has plans to utilise this farm for the production of cotton.

**It is worth noting that Mountain Valley is owned by two of the largest shareholders in Duxton Farms – Chairman Ed Peter and Richard Magides.**

### Products: Wheat, Barley, Canola, Cotton and Livestock

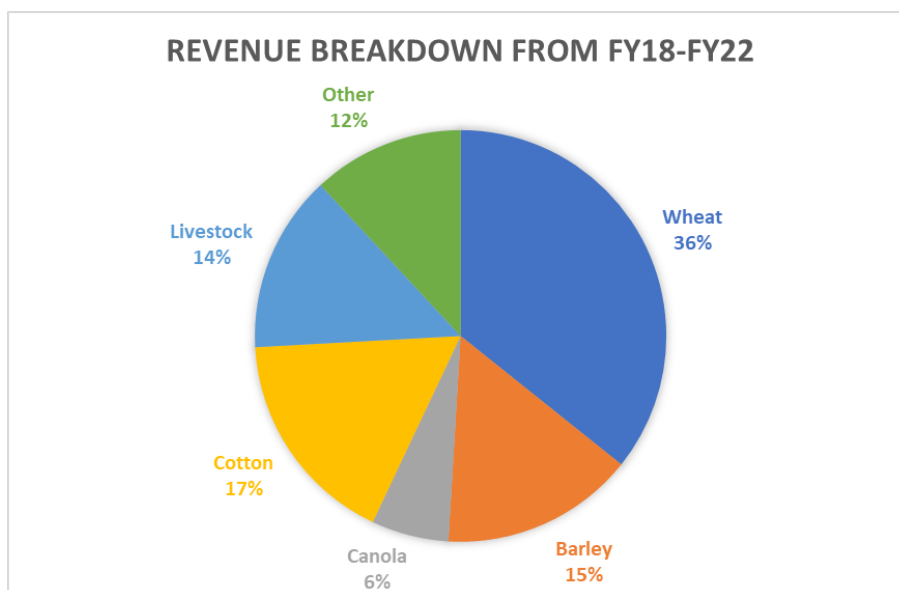
Duxton Farms' main winter crop profile includes – wheat, barley, and canola, which are sown in the Autumn months, and harvested, during Spring and Summer, usually concluding before January. The Company's main summer crop is cotton, which is planted in September/October and then harvested around April/May.

Duxton Farms' livestock program contains sheep and cattle.

The Company also grows produces a range of other crops, including chickpeas, field peas, lupins, mung beans, whilst also selling wool. However, these additional ventures have a limited impact on revenue.

The Company's revenue is primarily a function of grain, cotton and livestock prices.

**Figure 3: Average revenue breakdown from FY2018 to FY2022**



Source: Company Data

## Duxton Farms Ltd

Diversification is Key

Depending on certain seasonal conditions at various points of the year and both the selling costs and costs to produce, Duxton Farms actively looks to plant and harvest certain crops over others. Duxton Farms' diversification of crops strategy effectively allows them to do so. This is illustrated by the changes in revenue breakdown in figure 4.

**Figure 4: Duxton Farms – Revenue Split by Commodity FY18-FY22**

Revenue (Figures in AUD (millions))	FY18	FY19	FY20	FY21	FY22
<b>Wheat</b>	5.5	2.7	2.0	8.8	8.7
<b>Barley</b>	1.3	1.6	3.5	2.4	1.6
<b>Canola</b>	2.3	0.1	0.1	0.0	2.2
<b>Cotton</b>	2.2	6.2	1.4	1.4	0.7
<b>Livestock</b>	1.6	2.0	1.8	1.4	3.3
<b>Other</b>	1.7	1.1	1.9	3.7	0.2
<b>TOTAL</b>	14.6	13.6	10.7	17.8	16.6

Source: Company Data

## Duxton Farms Ltd

Diversification is Key

### Market Analysis

Australia is a major producer of wheat, barley, and canola, and has experienced high prices for these commodities due to exceptional growing conditions and poor conditions in other countries.

However, Australian farmers have faced challenges such as severe weather, COVID-19, and the Russia/Ukraine conflict, which have required operational changes for profitability.

Over the past two decades, the gross value of agricultural, fisheries, and forestry production in Australia has increased by 59%. Agriculture occupies 55% of Australian land use, accounts for 24% of water extractions, 11.6% of exports, 2.4% of the GDP, and 2.5% of employment.

Globally, agriculture contributes around 4% to the GDP, with some least developing countries relying on it for over 25% of their GDP, primarily in Asia and Africa.

### Historical Australian Analysis

Mixed weather conditions have seen rates of agriculture and livestock production fluctuate over the prior decade. Figure 5 shows the total output of wheat, barley, canola, cotton, sheep and livestock that Australia produced within that fiscal year, compared with the total revenue that Duxton Farms generated. The correlation between Duxton Farms' revenue from FY2018-FY2022 and the national production of the corresponding agricultural products is related to favourable or unfavourable conditions experienced.

**Figure 5: Comparison of Total Australian Agricultural Output for Given Commodities and Duxton Farms Revenue**

Production (000's)	FY18	FY19	FY20	FY21	FY22
Wheat (tonnes)	21,000	18,000	14,000	30,272	36,000
Barley (tonnes)	9,000	9,000	10,100	14,600	14,300
Canola (tonnes)	4,000	2,000	2,300	4,800	7,000
Cotton (tonnes)	950	414	115	566	1,300
Cattle (# on holding)	24,000	22,000	21,000	22,000	22,000
Sheep (# on holding)	71,000	66,000	64,000	68,000	70,000
<b>TOTAL</b>	<b>129,950</b>	<b>117,414</b>	<b>111,515</b>	<b>140,238</b>	<b>150,600</b>
<b>% Change in Australia's Total Production</b>		<b>-10%</b>	<b>-5%</b>	<b>26%</b>	<b>7%</b>

<b>Duxton Farms Revenue (Figures in AUD (millions))</b>	<b>14.6</b>	<b>13.6</b>	<b>10.7</b>	<b>17.8</b>	<b>16.6</b>
<b>Duxton Farms Revenue (% Change)</b>		<b>-6%</b>	<b>-22%</b>	<b>67%</b>	<b>-7%</b>

Source: Company Data and ABS

The droughts spanning over 2017-2020, mainly affecting the Murray–Darling Basin (MDB), were described by the Bureau of Meteorology as the worst on record in terms of severity based on rainfall records, with rainfall in MDB over that period the lowest on record.

These droughts wreaked havoc on Australia's agricultural output, and by FY2020:

- **Australia's cotton production dropped to its lowest level since 1982-83.**
- **Wheat production, in which Australia is the largest producer in the Southern Hemisphere, was down 16% from FY2018 and 39% from FY2013 at its lowest level since 2008.**
- **Australia's sheep flock fell to its lowest level since 1904 with a fall of 3% from FY2019 to 64 million sheep.**
- **Following a similar pattern, the beef cattle herd was reduced to 21 million head, its lowest level since 1990.**
- **Overall, this represented the third consecutive year of decline in the volume of agricultural production, which is down by 16% compared with the FY2017 results at the start of the droughts.**

Source: ABS

The 2019-2020 Black Summer bushfires had a devastating impact locally, but most of Australia's agricultural production occurs outside the affected areas, with less than 1.4% of agricultural land in New South Wales and 1% or less in other states affected (AABRES). However, within the fire-affected areas, around 14% of the land that burned was agricultural.

The world was then struck with COVID-19 and then the Russia/Ukraine conflict.

## Duxton Farms Ltd

Diversification is Key

However, with drought-breaking rainfall and better access to water for irrigation, Australia's production was largely unhindered by these two major events.

By FY2022:

- **36 million tonnes of wheat produced, breaking the record set in the year prior, growing by 14% within a year.**
- **7 million tonnes of canola production, hitting an all-time high and more than doubling the 10-year average to 2021–22.**
- **Area of sown to cotton almost doubled, up 99% from FY21.**
- **70 million sheep and lambs on farms on 30 June 2022, up 3% from FY21.**
- **22 million beef cattle on 30 June 2022, up 1% from FY21.**

**Source:** ABS

In more recent times, the third consecutive La Niña event and continued high prices has resulted in further strong results for production. However, some flooding and waterlogging along parts of the east coast in late 2022 have seen some localised losses of crops and caused disruption to the harvest of winter crops and movement of livestock within the region (ABARES).

### Historical Global Analysis:

The Top Agricultural Producing Countries:

1. China
2. United States
3. Brazil
4. India
5. Russia
6. France
7. Mexico
8. Japan
9. German
10. Turkey

**Source:** Tractor Junction

In the latest set of statistics revealed by the FAO, global production of primary crops increased by 52% between 2000 and 2020, with four crops (sugar cane, maize, wheat and rice) making up about half of that figure.

This growth can be attributed by two main drivers: the amount of land used for agriculture has expanded, and the main driver – the rapid rise in crop yields (Our World in Data).

### Impact of COVID-19

COVID-19 caused the agricultural sector to experience significant supply chain disruptions and associated lockdown measures. However, due to the agility of producers, supply chain actors, and retailers, as well as the swift response by governments and high prices, the sector only experienced limited economic impacts (OECD). Governments in 54 developed and emerging countries implemented nearly 800 measures to prevent disruptions, absorb shocks, assist affected producers and consumers, and aid in the recovery of production activities, allocating at least USD157 billion to the agriculture sector for these efforts, with a significant portion dedicated to food assistance. As the pandemic's impact on the industry diminishes, policymakers redirected their spending toward investments that improved the sector's overall resilience.

### Impact of Russia-Ukraine

Russia's invasion of Ukraine in 2022 had significant impact on the production of agricultural sector. Ukraine and Russia are among the most significant producers and exporters of arable crops in the world, with a particular focus of cereals and oilseeds (OECD).

- Russia and Ukraine accounted for 10% and 3% of global wheat production on average over the past five years, respectively.
- Ukraine and Russia together account for less than 5% of global maize production, with Ukraine having the largest share.
- Together, Russia and Ukraine account for 20% of global barley production, and are the third and fourth largest exporters, respectively.

The conflict between Russia and Ukraine is primarily impacting Ukraine's production and export capabilities, causing worries about the harvest of crops. Additionally, the ongoing war has resulted in the closure of ports and oilseed crushing facilities, leading to a decline in exports.

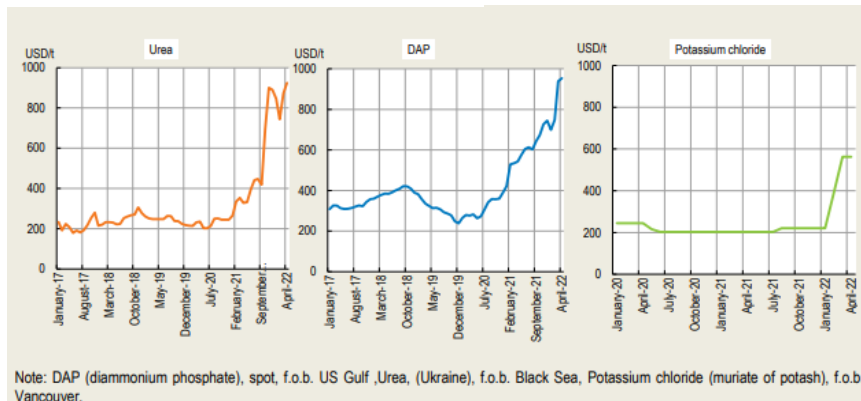


## Duxton Farms Ltd

Diversification is Key

Recent tariffs placed on Russia, also saw the price of fertiliser shoot up to record levels, as the country is the world's top exporter of nitrogen fertilisers, the second leading supplier of potassium fertilisers and the third largest exporter of phosphorous fertilisers. In addition, the rise in electricity and fuel exacerbated by the conflict provided more challenges for obtaining profitability for Duxton Farms and the rest of the global agricultural industry.

**Figure 6: Recent Trends in Fertiliser Prices**



Source: World Bank (2022)

Following the most severe drought in 120 years in Australia (BOM), was rainfall associated from La Niña in the following years. However, when Australia experiences a La Niña event, this typically means that some other regions around the world experience less rainfall as the climate patterns are affected by the changes in sea surface temperatures and atmospheric circulation.

Over the last few years, Western, Midwestern, and Northeastern United States, Canada, Brazil, Argentina, China, most significantly the Yangtze River Basin, two-thirds of India and parts of the EU suffered droughts, some of which were the worst the country had seen in history, slashing the production output and exports of their agricultural commodities.

Specifically, during this time:

- **Production of canola in Canada – the world's largest producer – has been severely restricted in the last few years (ABRES).**
- **Argentina's soy harvest was the lowest since the turn of the century (Reuters).**
- **About 35 million hectares of cropped area (where crop loss was 33% and above) was damaged in India (Quartz).**
- **Brazil's national grain production came in 47 million metric tons below expected production (Ministry of Agriculture, Livestock and Food Supply Brazil).**
- **2.2 million hectares of agricultural land in China was heavily impacted (South China Morning Post).**

### Historical Pricing

As a result of these factors affecting supply, in 2022, the FAO Global Food Price Index (FFPI) reached its highest level on record since 1990.

Commodity pricing is complex. Nationally and internationally, there are multiple variations for the prices of the same commodity. On a national front, the prices are different based on where you are in the country (i.e., the port/zone delivery), and the quality of the grain.

For Duxton Farms' NSW aggregation, they are located in the Port Kembla Zone, in which their base grades for wheat, canola and barley are APW1, CAN1 and BAR1. In regard to their cotton pricing, contracts are usually sold in advance of the growing season because this gives them greater control and visibility over the cotton crop given that it is irrigated and therefore not as weather dependent as the dryland winter crop.

In regard to livestock, Duxton Farms' pricing is largely determined by auction at the point of sale. The Eastern Young Cattle Index (EYCI) is a weighted composite index composed of data for young cattle (steers and heifers) taken from a number of saleyards in NSW and Queensland, with the large cattle grazing towns which process the most cattle having the largest influence on pricing. While the EYCI is an indication of how prices are moving, it's not the determinant of pricing. Actual prices received are largely determined on the day at auction, or through a pre-arranged *ad hoc* sale.

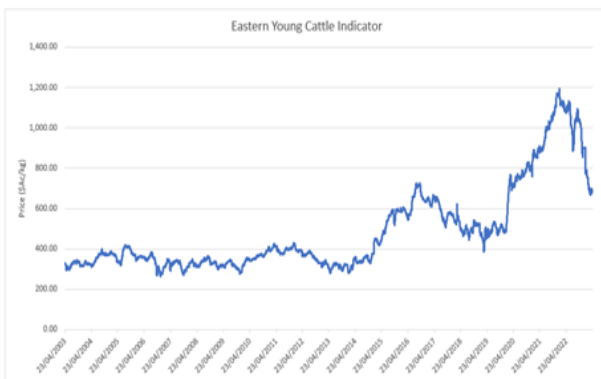
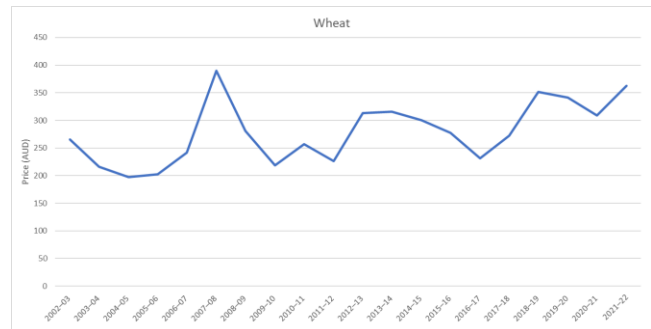
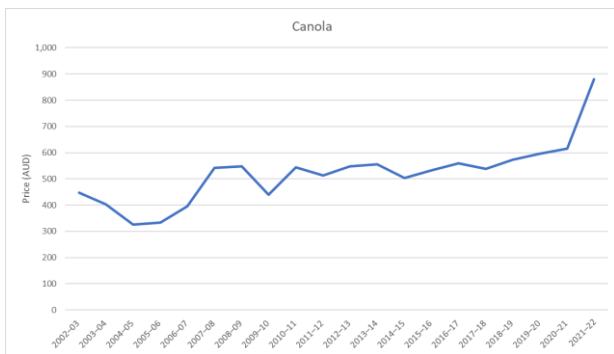
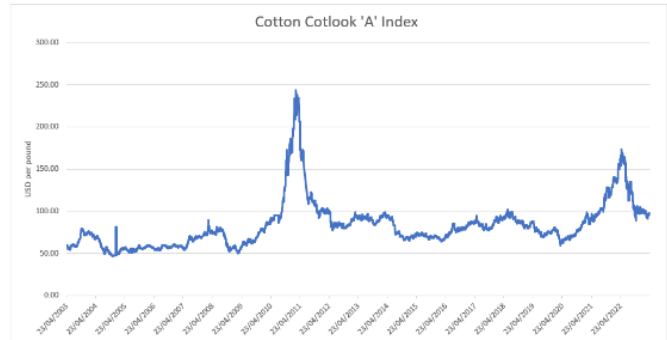
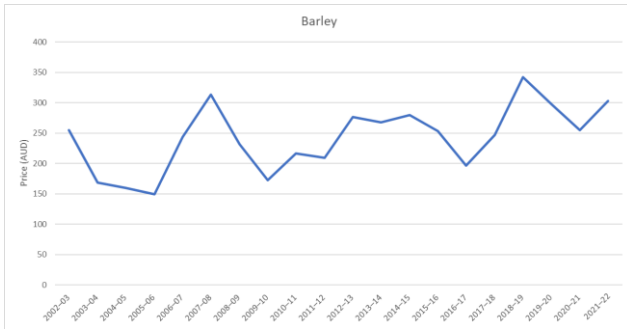
The historical prices shown below are both Australian and/or international prices. They are provided by ABARES or FactSet and although they differ from Duxton Farms' pricing methods, they provide an indication of the how prices are moving over time as a result of various supply and demand dynamics.

All figures in AUD unless stated otherwise

## Duxton Farms Ltd

Diversification is Key

### Grains and Seeds Prices



**Source:** Barley, canola and wheat are sourced from ABARES. Cotton and the Eastern Young Cattle Indicator (EYCI) are sourced from FactSet.

**NOTE:** Wheat, canola and barley pricing for 2021-22 is estimated from ABARES. The Cotlook 'A' Index is a global benchmark indicator for the price of cotton, whilst the EYCI is a weighted composite index composed of data for young cattle (steers and heifers) taken from several saleyards in NSW and Queensland

- The prices above show the spike in the prices of canola, barley and wheat during 2007-2008 were as a result of global food crisis.
  - The reasons for the crisis were multifaceted, but included – incomes in developing countries increased, leading to higher demand for water-intensive food, developed countries' biofuel producers paid high prices for grain crops with government subsidies, driving up input costs due to rising oil prices and global crop production failed to keep up with population growth, while severe droughts in major grain-producing countries like Australia, Russia, and Ukraine led to significant crop failures. Impacts to livestock prices were minimal because consumers in some markets shifted away from meat products and towards cheaper sources of protein such as legumes.
- The price of cotton shot up in 2010 and 2011 due to weather-related crop failures in major cotton-producing countries (including China, India, and Pakistan), strong demand from developing countries despite global economic turmoil, investors and traders buying and selling cotton, and competition from other more profitable crops.
- The price of livestock in Australia increased sharply in 2016 and 2017 due to drought, strong export demand, changes in industry practices, and currency exchange rates, but gradually returned to more moderate levels as conditions improved.

All figures in AUD unless stated otherwise

## Duxton Farms Ltd

Diversification is Key

- The price of barley increased in 2019 due to several factors, including reduced supply caused by drought conditions in Australia, strong demand from Chinese buyers, and trade tensions between China and the United States that led Chinese importers to shift their purchases to other countries like Australia.
- Previously mentioned were the slight impacts of COVID-19 on production. As seen above, the prices of the commodities and livestock, besides cotton, were elevated slightly during the period as a result of these effects – mainly export restrictions.
- The impacts of the recent global droughts, as well as the Russia/Ukraine conflict can be assessed, with canola and EYCI hitting all-time highs, whilst the others are all elevated.
- More recently, the price of cotton has dipped and stabilised as a result of increased inflation, increased interest rates and recession fears, with the general belief that more will be spent on essential goods over consumer discretionary.
- The EYCI has fallen sharply since it's all time high, with Meat & Livestock citing that the expected rise of higher supply in Australia as the main reason, as well as a reduction in demand.

## Looking Ahead

### Australia's Outlook

Figure 7: Australian summer crop production, 2022–23

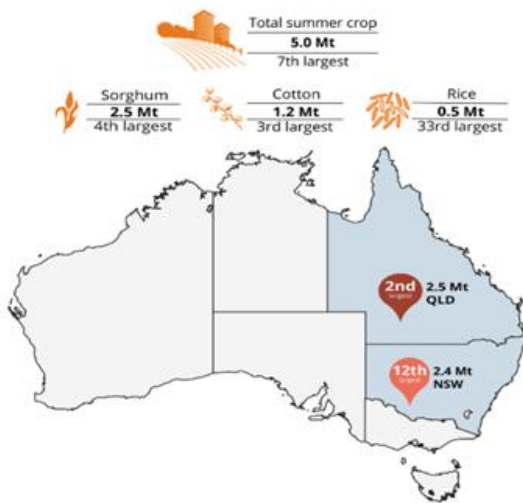
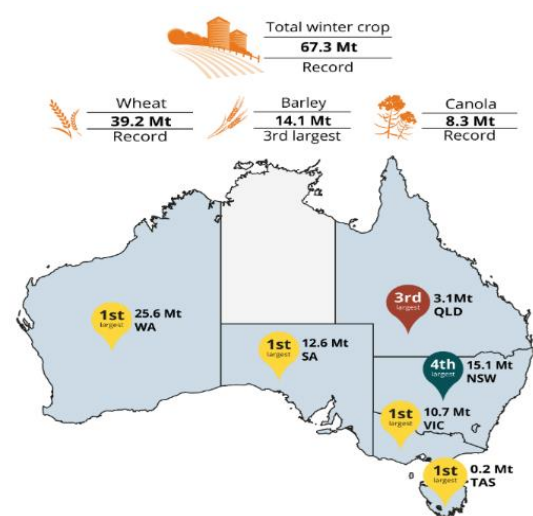


Figure 8: Australian winter crop production, 2023–24



Source: ABARES

In 2022-2023, Australia's winter crop is expected to hit a new record of 67.3 million tonnes, surpassing the previous year's record by an additional 4 million tonnes, whilst the nations summer crop production is expected to remain above the historical average, but below last year's average (ABARES).

The great winter results overlooked significant widespread flooding and waterlogging damages in eastern states.

However, while wet and cool spring conditions resulted in record production for winter crops in some regions of Western Australia, South Australia, and Victoria, these conditions also caused flooding and waterlogging damages in eastern states, limiting, or reducing production in many areas.

"As good as that weather's been for the crop, it's also created some devastating flooding," GrainCorp CEO and managing director Robert Spurway.

Cropping regions in New South Wales and Victoria were the worst affected, with floods damaging a significant portion of their land. Crops across the eastern states suffered from waterlogging, resulting in lengthy harvest delays and quality downgrades.

As such, approximately 70% of Duxton Farms' core portfolio in the Forbes area was subject to inundation, which not only substantially reduced the amount of harvestable land but prevented the Company from planting meaningful areas to cotton for the summer crop.

All figures in AUD unless stated otherwise

# RESEARCH REPORT

## Duxton Farms Ltd

Diversification is Key

As La Niña is over, Australia is expected to move into the prospect of drier conditions in the future, which is likely to create pressures for Australian producers. While the majority of Australian farm businesses are currently in a strong position, a drier future leading to lower production can be expected to affect industry structure and farm balance sheets.

Production in long term will depend heavily on annual seasonal conditions, and pricing.

**Figure 9: Forecasted Production of Wheat, Barley, Canola and Cotton**

	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
<b>Wheat</b>	39.2 million tonnes	28.2 million tonnes	17.8 million tonnes	26 million tonnes	26 million tonnes	20 million tonnes
<b>Barley</b>	14.1 million tonnes	9.9 million tonnes	9 million tonnes	9.7 million tonnes	9.7 million tonnes	9 million tonnes
<b>Canola</b>	8.3 million tonnes	5.4 million tonnes	4.2 million tonnes	4 million tonnes	3.8 million tonnes	3 million tonnes
<b>Cotton</b>	5.3 million bales	4.5 million bales	1.2 million bales	3.7 million bales	4 million bales	2.1 million bales

Figure 9 outlines the forecasted production of wheat, barley, canola till the forecasted period of 2027-28. It predominantly uses ABARES estimates but examines the impact of a drier upcoming seasons outlined by BOM, CSIRO, and ABC. Past FY2025, the predictions become increasingly difficult due challenge of predicting long term weather patterns.

The forecast outlined also caters for a drier scenario, with the driest rainfall years expected in 2024-25 and 2027-28 (ABARES). This aligns with BOM's previous findings, including "every decade since 1950 has been warmer than preceding decades," as well as the CSIRO's comments stating, "Australia is expected to experience an increase in extremely high temperatures, and droughts in southern areas." The drier scenario follows Australia's previous events of extreme droughts from 2017-2020, to heavy rainfall and flooding in some areas in 2020-2022 and follows the fact that climate change is influencing all extreme weather events.

The forecasts also take into considerations the Bureau of Meteorology (BOM) forecasting that the Indian Ocean Dipole (IOD) will enter a positive phase in 2023. A positive IOD results in less rain across Australia.

Specifically, the BOM is forecasting that from May to July, it is probable to highly probable (with a chance of 60% to over 80%) that most of Australia will experience lower than average rainfall. During this period, it is very likely (with a chance of over 80%) that maximum temperatures will be above the median for most parts of Australia.

Hence, the forecasted less favourable drier conditions are expected to see production fall in 2023–24. **It is important to note that stored soil moisture arisen from heavy flooding in the eastern states can see NSW and Queensland boost wheat production to remain above average. If this scenario plays out, this will benefit Duxton Farms, as the recent flooding has created deep soil moisture within their farms and will help to counter the effect of drier conditions, to operate a season of crops unimpeded.**

For the projected period, barley is forecasted to be similar to the level in 2023–24. Historically, Barley has been planted more in drought years as it is more adaptable to dry conditions than other crops such as wheat and canola. Therefore, the forecasts outline that barley production is likely to decline less in drier conditions.

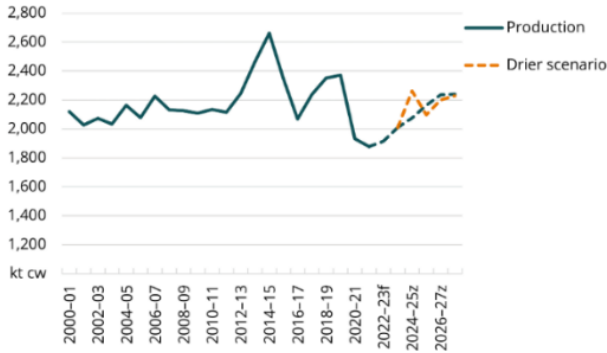
In regard to canola, over the past few years, farmers have been shifting to growing canola ahead of barley and to a lesser extent wheat, due to the fact that prices are currently at an all-time high, representing a large premium to barley and wheat. The prices spiked as Canada – the world's largest producer of canola, representing approximately 25% of the worlds production, experienced severe drought. However, with these conditions expected to ease in Canada, the prices will fall, so farmers will look to allocate more land to cereal crops, like wheat and barley, which will draw down on total production figures. The production is hence expected to continue to drop, with significant falls in both 2024-25 and 2027-28, influenced by the drier scenario.

Producing cotton is also water intensive – requiring an average of 6-7 megalitres per hectare (ML/ha) (source: Crop and Pasture Science 2013). This compares to the average water use of rice (11.5ML/ha), fruit and nut trees (5.1 ML/ha) and vegetables for human consumption (4 ML/ha) (source: ABARES). However, unlike canola's forecasted continued downfall, cotton is expected to increase, except in the extreme dry conditions outlined in 2024-24 and 2027-28, due to reduced interest rates spurring demand for non-discretionary items – such as clothes. In addition, the cotton market with Australia works slightly differently to the other crop markets. Cotton requires irrigation systems, and when the cost of water is low, farmers tend to produce more cotton, and when the cost of water is higher, farmers try to sell their water rights. So, the production of cotton will depend on the price of water rights.

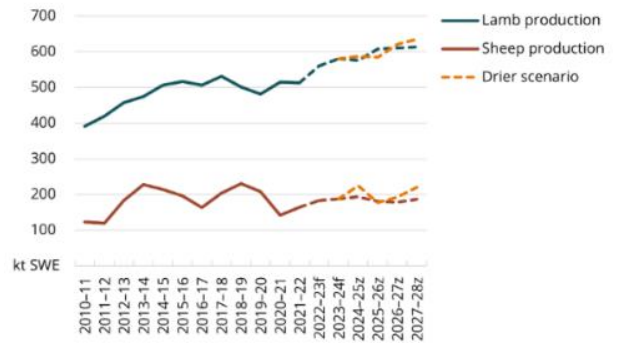
## Duxton Farms Ltd

Diversification is Key

**Figure 10: Beef and Veal Production 2000-01 to 2027-28**



**Figure 11: Lamb and Sheep Production 2000-01 to 2027-28**



**Source:** ABARES

Figures 10 and 11 illustrate the ABARES forecast for the production of cattle and sheep till 2027-28, showing the effects of the drier scenario on production.

Unlike crops, production of livestock can increase drastically in a drier scenario, as the conditions result in an increased turn off and slaughter.

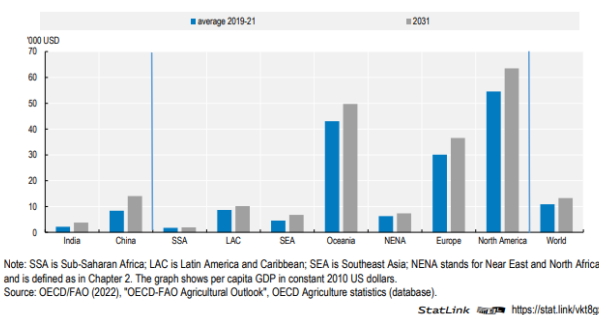
MLA have outlined that the continued rainfall and favourable seasonal conditions seen over the past few years, will ensure that “there will be solid supply of both young and slaughter weight cattle over the next two years, regardless of seasonal outcomes.”

They have predicted that in 2023, the national cattle herd will grow to its highest level since 2014 at 28.8m head, and that by 2025, the national herd is expected to reach its highest level since the 1970s at 29.6m head, before a steady decline. This growth trend is attributed to robust female reproductive performance, genetic enhancements throughout the herd, and effective on-farm management practices.

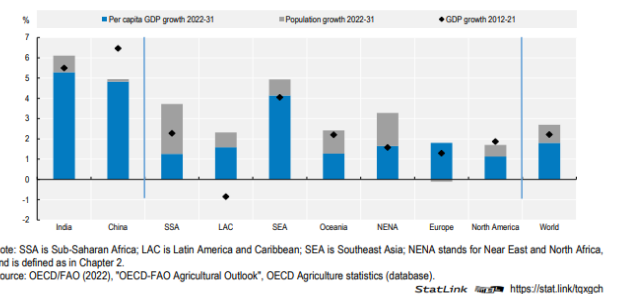
Similarly, MLA is forecasting that the national sheep flock will grow to its highest level since 2007 at 78.75m head in 2023 and will then plateau at 79.5 million head in 2024, before easing in 2025.

## Global Outlook

**Figure 12: Per capita income**



**Figure 13: Average annual GDP growth rates**



**Source:** OECD-FAO Agricultural Outlook

The world population is expected to grow from 8 billion in 2022, to 8.5 billion in 2030 and then further increase to 9.7 billion in 2050 and 10.4 billion by 2100 (United Nations). The Sub-Saharan Africa is expected to have the fastest growth at 2.5% p.a. over the coming decade, and India is expected to overtake China, as the most populous country of the world in 2031 (OECD-FAO).

The OECD-FAO Agricultural Outlook 2022-2031 outlines that global GDP is expected to grow at an average rate of 2.7% per year over the next decade. The overall growth can be attributed by a number of factors, including the declining of interest rates, and subsequent easing of inflation, the elimination of lockdowns driven from COVID-19, the projected easing of the Russia/Ukraine impact on global supply chains, and the population growth. The GDP figures are expected to be boosted by the growth in India and China economies, with the two countries, and Southeast Asia, growing at an average rate of 4%.

All figures in AUD unless stated otherwise

## Duxton Farms Ltd

### Diversification is Key

The paper is also forecasting an increase in per capita income figures over the next decade, to grow at an average annual rate of 1.8% in real terms. Strong growth is expected in Asia, with per capita income increasing by 5.3% p.a. in India, and by 4.8% p.a. in China. Growth in per capita income is also expected to be strong in Vietnam, at 5.8% p.a., and in the Philippines, Indonesia, and Thailand at 4.9%, 4.2% and 3.1% p.a., respectively.

As Asia, particularly India and China, have a significant impact to the global production of agriculture, population growth, GDP growth and per capita income growth forecasted for the upcoming decade should increase the demand for food, hence expanding the production output, pending various weather conditions, with potential to change the types of crops produced.

China's middle class has grown from roughly 3.1% of their population in 2000, to currently 50% of their population, with forecasts predicting continual growth (McKinsey). The rising of both the per capita income and middle class of the largest producer and consumer means that more of the population will continue to shift to more westernised diets, substituting rice for other grains, like barley, whilst also looking to increase the consumption of meats, dairy and fruits.

China's economic boom has also led to extreme urbanisation. In 1950, 13% of people in China lived in cities. By 2010, the urban share of the population had grown to 45%. It is projected to reach 60% by 2030 (Yale Insights). Urbanisation has an impact on grain production patterns from both the supply and demand sides. On the supply side, factors such as available arable land and rural labour are affected, which in turn influences grain production patterns. On the demand side, as the urban population in China increases, changes in dietary structure affect grain demand, and thus production patterns. Improved quality of life resulting from advanced urbanisation and economic development is the cause of the changes in dietary structure (Changes in China's Grain Production Pattern and the Effects of Urbanization and Dietary Structure).

In the OECD-FAO forecast, over the coming decade agricultural production is projected to increase by 17%. That growth will be predominantly located in middle-and low-income countries including India, China and other Asian countries, in which it will be driven by productivity-increasing investments in agricultural infrastructure and research and development; the mobilisation of production resources (e.g., agricultural land and irrigation water); more intense use of agricultural inputs; and improved management skills.

Global crop production is expected to grow by 18% over the coming decade, with China accounting for 30% of the growth, followed by India (17%) and the Asia-Pacific region (14%). The majority of the additional output will come from Sub-Saharan Africa (12%), Latin America (11%), Europe and Central Asia combined (8%), and North America (7%).

Of course, agricultural production will also be impacted by climactic conditions.

Another important note is that the ongoing conflict between Russia and Ukraine is likely to put pressure on international trade. The conflict is a major source of risk and uncertainty for agricultural trade, given the fact that these countries hold significant positions in global agricultural and input markets. Pending that the war continues, jurisdictions will likely implement alternate methods and rely less on Russia to ensure productivity remains sufficient.

## Pricing Outlook

Tight global supplies, increased production costs, trade policy uncertainties and slowdown in economic growth resulting from COVID-19 and the Russia/Ukraine conflict, as well as poor harvests resulting from extreme heatwaves, were the main drivers behind the significant spikes to the prices of agricultural commodities over the last few years.

Looking ahead, the elimination of COVID-19 lockdowns should see the easing of supply pressures. Some supply restrictions could remain from the effects of Russia invading Ukraine, however as previously mentioned, governments will likely make adjustments to ease these supply shocks.

As such, the OECD-FAO are projecting prices to remain broadly flat or decline slightly.

This aligns with the fact that that agricultural prices in real terms have been on a declining trend since the 1960s, as productivity improvements in agriculture and relative industries lowered the marginal production costs of food commodities. While there have been deviations from this general trend, including the global food crisis in 2007-2008, this did not alter the long-term declining trend.

The global organisation is forecasting that the recent spikes are temporary and that they are expected to subsequently resume their long-term declining trend.

In addition, the forecasted deflation and the reduction of interest rates should bring down the prices key agricultural commodities and input costs.

ABARES is predicting that after several years of droughts affecting key agricultural producers, rain will become prevalent, boosting production and hence, easing prices. However, there is a likelihood that La Niña could become prevalent, bringing excess rainfall and flood, which would limit crop production, creating supply shocks.

The expected easing of droughts in Canada will look to drive the price of canola down substantially. Canada is the largest producer of the oilseed in the world, and substantial droughts have seen production fall to similar levels of Australia, who rank 5<sup>th</sup> (WorldAtlas).

## Duxton Farms Ltd

Diversification is Key

In regard to cotton, enhancements in the macroeconomic landscape, coupled with lower inflation leading to increased disposable incomes, as well as a surge in the popularity of cotton-based apparel, are anticipated to boost demand for cotton. As a result, prices are predicted to rise in the coming years due to the expected growth in consumer purchasing power.

Demand factors should be kept strong, with per capita incomes increasing in agricultural producing bellwethers, China and India, as well as the rise in global population growth.

Within Australia, the BOM is forecasting drier conditions for the next 6 months, as a result of the Indian Ocean Dipole (IOD) entering a positive phase in 2023.

The retained soil moisture obtained from 18-months of prior rain will likely counter the effects of drier seasonal conditions the BOM is predicting, so prices will likely be stable.

## Value of Farmland

In addition to the Company's crop and livestock strategy, Duxton Farms' investment thesis focuses on actively purchasing and developing what they believe to be undervalued farmland.

As well as achieving operating returns from the income from the sale of the commodity produced on it, the Company can achieve growth through an appreciation in the land value.

The investment manager is responsible for undertaking selection and due diligence in potential investment, divestments and leasing opportunities.

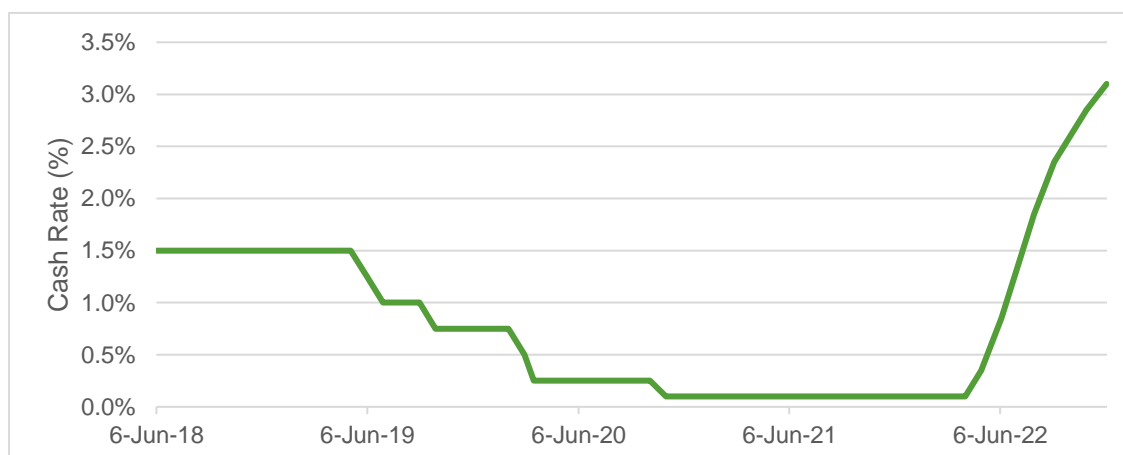
**Figure 14: Property Land Value**

Property	June 2018	June 2019	June 2020	June 2021	June 2022	Value Change (%)
Walla Wallah	8,000,000	11,000,000	12,400,000	13,825,000	18,200,000	127.50%
Cowaribin	2,800,000	3,000,000	3,200,000	4,030,000	5,000,000	78.57%
Merriment	2,600,000	3,400,000	3,700,000	4,490,000	6,000,000	130.77%
Timberscombe	28,750,000	30,000,000	31,200,000	36,980,000	53,000,000	84.35%
Kentucky	18,200,000	19,000,000	20,750,000	24,330,000	31,650,000	73.90%
Yarranlea	7,850,000	9,175,000	9,600,000	10,225,000	12,000,000	52.87%
West Plains	N/A	N/A	N/A	11,170,000	14,000,000	25.34%
Lenborough	N/A	N/A	N/A	2,900,000	3,675,000	26.72%
<b>Total</b>	<b>68,200,000</b>	<b>75,575,000</b>	<b>80,850,000</b>	<b>107,950,000</b>	<b>143,525,000</b>	<b>110.45%</b>

Source: Company Data

## Farmland Valuation

**Figure 15: Cash Rate**



## Duxton Farms Ltd

Diversification is Key

**Source:** RBA

Figure 14 shows the appreciation in land value of Duxton Farms' property since their IPO, whilst figure 15 shows the cash rate since 1990. The comparison shows how the majority of the farmland growth was made in a time where cash rates were historically low.

For relevancy purposes, the acquisition of Boorala in South Australia in early 2019, and its subsequent sale in late December and settlement in early 2021 was not included. However, the sale achieved a positive return for the Company, 37.5% above the indicated valuation.

Using the proceeds for the sale of Boorala, the company acquired West Plains and Lenborough in mid-2021.

Duxton Farms currently uses independent valuation agency LAWD Pty Ltd, to provide a yearly updated valuation report for the land, water, and structures owned by the Company. The Company has previously used CBRE Valuations Pty Limited.

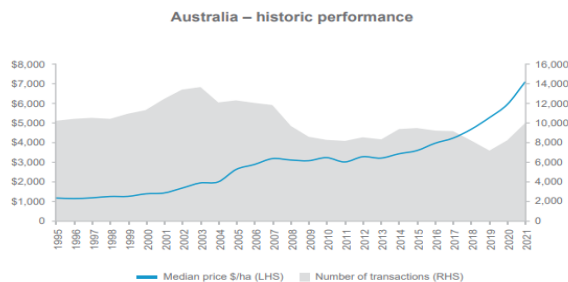
Although prevailing conditions has provided challenges for achieving operational profitability for Duxton Farms since their IPO, 2022 marks the fifth consecutive year of growth in the value of the Company's property assets.

Over the last few years, favourable seasonal conditions, and high commodity prices has offset the effects of recent high interest rates to keep agricultural farmland growing.

However, as these commodity prices ease, higher interest rates will look to dampen these land valuations.

## Comparison With Other Asset Classes

**Figure 16: Median price \$/ha of Australian Farmland**



**Figure 17: Australian Farmland Index**



**Sources:** Rural Bank (Figure 16) & Australian Farmland Index (Figure 17)

Nationwide, farmland land has generated a compound annual growth rate (CAGR) of 8.4% over the past 20 years (Rural Bank). Over the previous 5 years, the CAGR rate was 10.5 per cent (Elders).

Farmland values have also demonstrated remarkable long-term growth when compared to other asset classes (Rural Bank). Firstly, the growth in farmland values has surpassed that of residential property prices in Australian capital cities, which only recorded a growth rate of 5.4 percent over the last 18 years where the data has been published. **Furthermore, farmland value growth has outpaced the ASX200 over the last 20 years, which had a CAGR of 4.0 percent.**

The growth in Australian farmland values has been attributed to a significant increase in demand from various types of buyers. This surge in demand is primarily due to a combination of factors, including agricultural commodity prices, seasonal conditions, and interest rates.

The supply of available farmland in the market is another crucial factor impacting prices. In 2021, the volume of farmland transactions reached its highest level in 14 years. Despite this increase in supply, the demand for farmland still surpassed its availability, according to Rural Bank.

Figure 17 shows the **Australian Farmland Index, which tracks the performance of 63 different farming properties worth almost \$2 billion.** Since its inception in March 2015, the index has predominantly consisted of permanent horticulture farmland (54%) while cropping and livestock assets make up the remaining portion. Since its launch, the index has generated a total annualised return of 13.13%, with income returns and capital growth contributing almost equally to the returns.

According to the Australian Farmland Index, investing in a portfolio of top-quality farmland assets has the potential to generate greater long-term returns than investing in blue-chip listed companies. **Over the past seven years, an average annual return of more than 13% has been achieved, which is higher than the total return of 9% achieved by investing in an ETF that tracks the S&P/ASX 200 or the S&P/ASX 200 A-REIT index over the last 10 years.**



## Duxton Farms Ltd

Diversification is Key

### Management & Performance Fee Discussion

In return for the performance of its duties, the Investment Manager – Duxton Capital, is entitled to a monthly management fee equal to 0.85% per annum (plus GST) of the Portfolio Net Asset Value at the end of each month (calculated prior to any deduction of performance fees payable to the Investment Manager).

The Investment Manager is entitled to be paid a Performance Fee at the end of each financial year from the Company.

The Performance Fee is divided into two stages and is determined as 5% of the excess of the Company's Investment Return over a minimum annual return of 8% up to 12% per year. In addition, if the Investment Return exceeds 12% for the year, the Performance Fee will encompass 10% of the remaining excess of the Investment Return over the 12% hurdle per year.

The Investment Return is also based on the Portfolio Net Asset Value, which refers to the total assets of the Company minus the total liabilities of the Company excluding provisions for tax payable and Performance Fee, as based on the Company's audited accounts or latest management accounts.

The main driver of this – revaluation of land.

Despite recording substantial losses in the four out of previous five years, the Company's land base has increased by 110.4%, or 85% when assessing the farms that were owned by the Company since 2018.

The management and performance fee make a significant expense item on the P&L and its breakdown since the IPO date is shown in figure 18.

**Figure 18: Management & Performance Fee (figures in AUD (millions))**

	FY18	FY19	FY20	FY21	FY22
Management Fee	0.00	0.62	0.62	0.72	0.93
Performance Fee	0.30	0.00	0.00	1.29	2.39
<b>TOTAL</b>	<b>0.30</b>	<b>0.62</b>	<b>0.62</b>	<b>2.01</b>	<b>3.32</b>

**Source:** Company Data

The Company has claimed to develop capital appreciation through the aggregation and development of mispriced land, however the revenue generation from these farms has not kept up with this investment rationale. Managements claim to purchase undervalued land is difficult to determine however, given the unfavourable weather conditions dominating almost all of the previous 5 years.

We are comfortable with the Company's process of choosing an independent valuer to formulate a fair value, but as noted when comparing figures 14 and 15, this was all at a time when rates were historically low. As rates have been rising, currently sitting at levels not seen since early 2012, we would anticipate a slowing/declining of the land revaluations now that the interest rate cycle has turned. **So, instead of relying on low interest rates to revalue the land, the Company must rely on revenue generation.**

Additionally, the current annual inflation rate in Australia, based on ABS data released in April for the March quarter, is 7%. Although this is slightly lower than the previous quarter's 30-year high of 7.8%, the current high figures illustrate that the RBA will continue its rate hiking cycle, putting pressure on valuation of farmland.

## Duxton Farms Ltd

Diversification is Key

### Financials

Since their IPO in 2018, Duxton Farms' profitability has been mostly negative. Record breaking droughts over the Murray Darling Basin from 2017-2019 has resulted in an EBITDA of \$.541m, (\$.584m) and (\$1.239m) in FY2018, FY2019 and FY2020 respectively. During this period, revenue fell by 27%, whilst reported profit fell by 249%.

In FY2021, high rainfall throughout the year brought on exceptional growing conditions and Duxton Farms was able to capitalise. The Company harvested a record 60,470 tonnes of winter crop compared with 15,082 tonnes in the previous season, helping to achieve record profits of \$1.406m. The Company's EBITDA margin was 24.12% for the year. The average is -1.57%.

Although revenue achieved its second highest figure in FY22, reported profits suffered their worst losses, ending at (\$3.167m).

There were several reasons for this.

Global supply constraints, driven by the Russia-Ukraine conflict, meant that the Company was forced to navigate through an increased cost of sales – mainly fertiliser, electricity and fuel.

And the continued growth of the management and performance fee, as seen in figure 18, provides additional challenges to achieving profitability.

However, as a result of these valuation uplifts, Duxton Farms' asset base has shown stable growth since their IPO in FY2018.

### Outlook

**Figure 19: Wheat, Barley, Canola produced by Duxton in 2022-23**

Commodity	Winter Crop Production (tonnes)		Difference (%)
	2021/22 Season	2022/23 Season	
Wheat	28,561	4,324	(84%)
Barley	6,056	2,517	(58%)
Canola	2,624	1,421	(46%)
<b>Total</b>	<b>37,241</b>	<b>8,262</b>	<b>(78%)</b>

**Source:** Company Data

FY2023 been characterised by significant flood that occurred in the Central West of New South Wales during the last few months of 2022. Around 70% of Duxton Farms' primary holdings in the Forbes region were affected by flooding, resulting in a considerable decrease in available farmland and preventing the Company from cultivating significant areas for the summer cotton crop.

As a result, Duxton Farms experienced a delayed completion of their winter harvest compared to the usual timeframe. The final harvest yield for the season amounted to 8,262 tonnes, significantly lower than the previous season's figure of 37,241 tonnes.

The significant decline of 78% in the overall harvest serves as a clear indication of the severity of the 2022 flood events, which the Insurance Council of Australia has identified as the most financially burdensome natural disaster in the country's recent history. This sharp contrast is particularly evident when compared to the Company's winter harvest of 2020/21, which yielded a substantial 60,486 tonnes. The vast difference can be largely attributed to the loss of extensive cultivable areas due to flooding, resulting in the Company only being able to cultivate half of its intended crop.

As a result, a portion of the planned crops had to be abandoned, leaving a mere 4,855 hectares of productive land for this season's harvest.

Despite the decrease in overall harvest yield, the 2022/23 winter crop brought positive outcomes in terms of quality. A significant portion of the crops met or exceeded the Company's internal baseline standards, with 71% of wheat, 93% of barley, and 100% of canola achieving this benchmark. The remaining 29% of wheat was classified as high-quality feed for the market, while the remaining barley will be utilised as feed for the Company's livestock program on the farm. Similar to the previous year, the canola crop stood out as a remarkable success for the Company, with the entire harvest categorised as the highest quality grade. Additionally, the pricing for the canola crop has been secured at a level significantly above the market standard.

The Company announced on the 16th of November 2022 in a release titled 2022 Flood Impact that it expected full year FY2023 revenues of approximately \$8m and a forecasted net loss of approximately \$7.8m.

The poor results are due to reduced top line income and higher expenses related to preventing and mitigating floods. These flood-related costs have periodically taken away resources from other aspects of the business during the past year and a half.

When assessing the Balance Sheet, the two new lease agreements, resulting in acquisition of an additional 3,100 head of cattle, will be the major catalyst for a forecasted increased asset base for FY23.

To cover their losses, the Company has increased their drawn bank overdraft from \$5.320m in FY22 to \$8.733m in the first half of FY23, which are secured by the mortgages on the Company's assets. The Company currently has a \$13m call overdraft.

All figures in AUD unless stated otherwise

## Duxton Farms Ltd

Diversification is Key

These losses, in combination with the increased debt balance, pose questions as to how the Company can keep funding operations in the foreseeable future.

Duxton Farms' Net Asset Value per Share (NAVPS) has experienced its first decline since going public. The NAVPS dropped from \$2.58 to \$2.48 per share on a Statutory basis (compared to \$2.51 in the first half of 2022), and from \$2.68 to \$2.61 when the fair market value of the company's water assets is considered (compared to \$2.63 in the first half of 2022). This decrease can be attributed to higher levels of debt on the company's balance sheet, primarily due to working capital drawdowns and reduced revenue from operations. The figures indicate the impact of the New South Wales floods on the business, but the setback is expected to be temporary, with a resolution anticipated as operating conditions normalise throughout the year.

Looking ahead, the BOM is forecasting drier conditions through the 2023/24 season. Due to the retained deep soil moisture from the previous seasons, if this were to happen, the Company should operate a full season unimpeded.

And although Piambe Farms and Mountain Valley Station may not be at full production by FY24, the favourable conditions, as well as some production output from these farms, we feel it is appropriate to assume a greater revenue figure to the record achieved in FY2021, where conditions were most favourable since the IPO date.

Profitability will be difficult to obtain over the next few years for Duxton Farms due to the increased CapEx associated with incorporating the 2 new leases.

### Valuation

We have arrived at an Equity Value of \$1.49.

Through modelling of the reported results and our comprehension of Duxton Farms' operations and strategy, we have developed a representation of the Company.

Our assumptions are based on certain agricultural conditions, in which there can be a lot of variability. As a result, there is inherently a considerable level of uncertainty associated with our forecasts.

Forecast assumptions include:

- Long term pricing of Duxton Farms' commodities to ease from current figures. The price of wheat is \$390 per tonne (as of 1/05/23), the price of barley is \$296 per tonne (as of 28/04/23) and the price of canola is \$543 per tonne (as of 28/04/23).
  - APW1 for Port Kembla is forecasted to be \$340 per tonne
  - BAR1 for Port Kembla is forecasted to be \$250 per tonne
  - CAN1 for Port Kembla is forecasted to be \$460 per tonne
- Long term cotton pricing has been forecasted to increase slightly, whilst livestock has remained almost flat.
- Incorporation of the two new leases, and the CapEx associated, with full production capacity expected to begin in FY26.
- Favourable weather conditions in FY2024, followed by ABARES forecasts of drier conditions in FY2025.
- Valuations have factored in the Company's share buyback plans.
- Valuations have factored in drawing of the full amount of the bank overdraft, equivalent to \$13m.
- In the mid-long term, debt has eased due to continued retained earnings losses.
- Biological transformation has not been forecasted.
- A performance fee has not been forecasted. A management fee is forecasted based on Net Asset Value.

## Duxton Farms Ltd

Diversification is Key

### Competitors

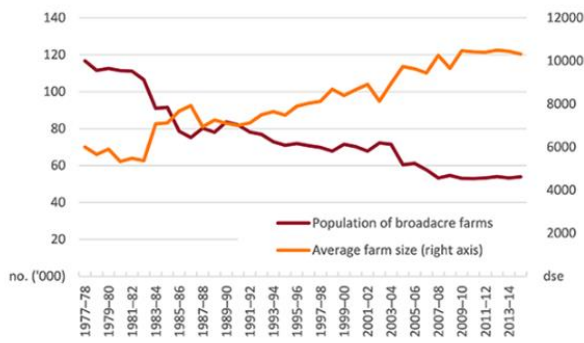
Like a typical commodity company, Duxton Farms produces a set of homogenous goods, within their respective grades, that they sell at the market price. There are many interchangeable buyers and sellers making the market and there is no nonprice competition.

In addition, when market conditions are favourable, i.e., good growing conditions, high commodity prices, low input costs, farmers should be profitable.

It is important to note that a lot of farmland, especially within NSW, is tightly held by a small number of families.

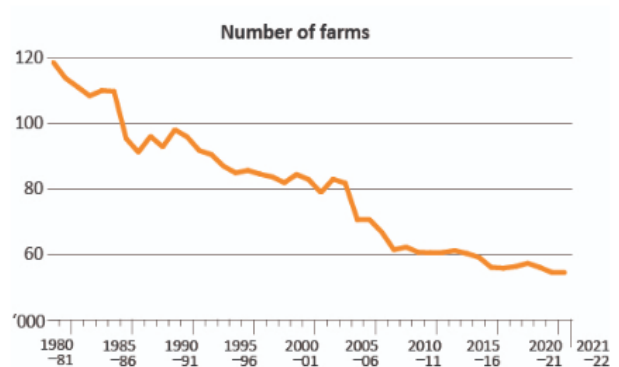
Importantly, ABARES statistics notes that the size of Australian farms has expanded over the past four decades. The number of large farms has increased while the number of small and medium farms has declined.

**Figure 20: Population of Broadacre Farms Vs. Average Farm Size**



Farm population and average farm size, all broadacre industries, Australia 1977-78 to 2014-15

**Figure 21: Number of Farms Since 1980**



**Source:** ABARES (Figures 20 and 21)

In addition, ABARES estimates the number of broadacre and dairy farms in 1980 to be approximately 118,000. Today, that number sits at around 54,400, with 62% classified as livestock farms, 30% cropping farms and 9% dairy industry farms.

As smaller farms exit the industry (for example, due to aging farm managers and generational shifts with children of farm owners choosing careers outside the family business), Duxton Farms is faced with less competition, and there is a large scope for corporatisation and consolidation opportunities, improving economies of scale.

## Duxton Farms Ltd

Diversification is Key

### Company Risks

#### Adverse Weather Conditions

Adverse weather serves as one of the biggest threats to the agricultural sector, both within Australia and on an international scale and its impact is largely beyond the control of farmers.

Droughts and flooding, or other events such as hailstorms, frost, heatwaves, and extreme temperatures can lead to crop failure, reduce yields, suffocate plant roots, deplete essential nutrients, cause soil erosion and etc, whilst livestock can be affected due to a reduction in feed quality and availability. Averse weather can also make it difficult to plant new crops.

With climate change also leading to more extreme weather events, Duxton Farms will likely have to navigate through these adverse conditions moving forward.

Some measures the Company can implement to reduce this risk, includes:

- Weather monitoring systems: these systems can help farmers gather real-time weather data, which can be used to make informed decisions about planting and harvesting.
- Irrigation: Duxton Farms' existing irrigation system helps to reduce the effects of droughts.
- Soil conservation: farmers can use soil conservation practices such as cover crops, reduced tillage, and crop rotation to improve soil health and fertility, making crops more resilient.

#### Commodity Prices

Australian agricultural commodity prices are determined by supply and demand metrics in the domestic and international grain markets. As is evident over the last several years, supply disruptions resulting from droughts in North America, Asia, and South America – mainly Argentina and Brazil, COVID-19 and the Russia/Ukraine conflict has seen prices of grains skyrocket globally. More recently, the prices of cattle have fallen more than 40% since November on the back of predicted increased supply and current the recution in demand for meat. These price changes were seen in Australia, as export demand increased.

More changes to supply/demand metrics, for example, seasonal factors, demand from gain processors and import quotas and/or tariffs will affect the earnings of Duxton Farms.

To avoid these risks to prices, the Company employs a variety of strategies, including forward sales, derivatives, long-term contracts, and market intelligence, to hedge pricing risks and smooth out seasonal fluctuations. Hedging strategies for specific commodities include a combination of forward sales and derivatives for winter crops, forward sales for cotton, predominantly spot market for livestock, and a mixture of long-term contracts and spot sales for hay.

#### Input Costs

Fertiliser, irrigation, fuel (diesel) and electricity represent significant input costs in the production of grains. Elevated prices of these cause the costs of goods sold to increase, which may impact the Company's profitability.

Duxton Farms was affected by the recent higher costs of fertiliser, fuel and electricity spurred on by Russia's invasion of Ukraine and will continue to battle these pressures in the foreseeable future as prices of electricity, energy and fertiliser remain elevated.

#### Regulations

Regulatory restrictions imposed on Australian grains – mainly wheat, barley, canola, seeds – mainly cotton, and livestock – mainly sheep and cattle, can have adverse effects on the demand and hence profitability of Duxton Farms.

In recent years, China imposed trade sanctions on Australian agriculture, including wine, meat and barley. As some of Duxton Farms' customers export internationally, restrictions placed on Australia can trickle down to the Company, reducing demand and the market price.

Within Australia restrictions can also hinder Duxton Farms' profitability. Two notable examples include:

- Restrictions on water allocations during drier seasons, which is the responsibility of the State governments, can limit the amount of water available for agricultural purposes, impacting the production of crops; and
- Restrictions on labour availability can impact Australian agriculture, as it is a labour-intensive industry, and changes to immigration policies can affect the availability of seasonal workers who are crucial in harvesting crops.

#### Disease/Animal Health/Pest Risk

Australia has a set of highly regarded bio-security regulations and strict quarantine regimes. However, there is a possibility that serious contagious diseases that impact crops or livestock worldwide may be introduced in Australia, and there is no guarantee that such diseases can be prevented. Any significant disease that affects major crops and/or livestock may have an adverse effect on production and hence the Company's ability to generate revenue.

Animal pests and diseases, most notably foot-and-mouth disease, are a major threat to Duxton Farms' livestock programme and an outbreak could impact on our access to export markets and undermine livelihoods.

## Duxton Farms Ltd

Diversification is Key

### Acquisitions

Duxton Farms is actively searching to acquire additional broadacre farms, which they believe will improve operational efficiencies, farm yields, and returns. However, there are risks associated with the acquisitions, such as pricing and integration risks, and if the farm investments do not perform as expected, it could have a significant negative impact on the Company's value.

### Exchange Rates

Commodity prices, which drive the Company's revenue, are typically denominated in USD, so if the AUD appreciates against the USD, the Company's profitability would be affected as it would receive reduced AUD revenue.

### Limited Liquidity

Investments in agricultural land, as with other investments in land, are relatively illiquid. Such illiquidity may affect the Company's ability to adjust its investment portfolio or sell assets in response to changing economic, financial, or real estate market conditions. For instance, Duxton Farms may be unable to liquidate its holdings in agricultural land or may be forced to give a substantial reduction in the price that may otherwise be sought for such assets to ensure a sale.

### Operations

Unforeseen operational failures, technical difficulties, breakdowns, and repairs to plant and equipment may cause significant delays and affect the activities of the Company, while industrial and environmental accidents, disputes, and force majeure events could also have an impact on the Company's operations.

## Board

### Edouard Peter

#### Chairman of the Board & Executive Director

Edouard Peter is the co-founder and Chairman of Duxton Asset Management Pte Ltd ("Duxton"). Prior to forming Duxton in 2009, Ed was Head of Deutsche Asset Management Asia Pacific ("DeAM Asia"), Middle East & North Africa. He was also a member of Deutsche Bank's Group Equity Operating Committee and Asset Management Operating Committee. Ed joined Deutsche Bank in 1999 as Head of Equities and Branch Manager of DB Switzerland. In March 2001, Ed moved to Hong Kong with Deutsche Bank and was appointed Head of Global Equities for Asia and Australia, becoming responsible for all of Global Emerging Market Equities in the beginning of 2003. In November 2004, Ed became Head of Asian and Emerging Market Equities for the new Global Markets Division.

### Stephen Duerden

#### Non-Executive Director

Stephen Duerden is currently the CEO of Duxton Capital (Australia) Pty Ltd. Stephen has over 25 years of experience in investment management, the last 14 of which have been focused on agriculture operations and investments, and joined Duxton in May 2009, as the CEO of Duxton in Singapore. Before joining Duxton, Stephen was the COO and Director for both the Complex Assets Investments Team and the Singapore operation of Deutsche Bank Asset Management Asia. Prior to this Stephen worked with Deutsche in Australia where he was a member of the Australian Executive Committee responsible for the management of the Australian business, with assets under management of approximately AUD \$20 billion, and a member of the Private Equity Investment Committee overseeing the management of over AUD \$2.5 billion in Private Equity and Infrastructure assets. Stephen has had exposure to a broad range of financial products and services during his career. He has been involved in direct property development and management, the listing and administration of REITS, as well as the operation and investment of more traditional asset portfolios.

## Duxton Farms Ltd

Diversification is Key

### Wade Dabinett

#### Independent Non-Executive Director

Wade Dabinett has over 14 years of experience in the Australian grain industry, encompassing grain trading, storage, handling, and production. Wade is a partner in Longtrail Farms, a 7,500-hectare irrigated, and dryland broadacre generational farming business based at Parilla in the Southern Mallee of SA which produces a mix of grain, potatoes, sheep and cattle. Wade previously held the position of Chairman of Grain Producers SA, the state's peak industry body representing the states 3,000 grain growers, for four years after previously serving as Vice Chair for a further two years. He was also the Chair of GPSA's sub-committees for Transport & Supply Chain, Agricultural Security & Priority and was also a member of the Audit & Finance Committee. Wade was previously a member on Primary Producers SA representing the grains industry and a member of the National Policy Council for Grain Producers Australia. He was also appointed in 2015 to the ABC Advisory Committee representing Rural and Regional Australia and reporting to the board on programming and content until 2019.

### Mark Harvey

#### Independent Non-Executive Director & Deputy Chairman

Mark Harvey has more than 40 years of experience in agriculture and agribusiness. He started his agribusiness journey managing a 10,000-acre family farm producing seed, grain crops, wool, lamb and beef, from 1976 until 1991. He was one of the founders of Paramount Seeds which specialised in research, development, and marketing of new field crops until sold to Elders Ltd in 1996. While with Elders, Mr Harvey was manager of their national and international seed business from 1996 until 2001. In 2002, he was one of the founding partners of Seed Genetics International which is currently a leading researcher, producer and marketer of genetics and seed worldwide from Australia. In April 2013, Seed Genetics was sold to S&W Seed Co, a NASDAQ listed company based in Sacramento California which is a leading US genetics and specialty seed company. Mark was elected as a director at this time. On December 9, 2014, Mr Harvey was elected Chairman of the Board of Directors of S&W Seed Company, a position he still holds.

### Amanda Rischbieth

#### Independent Non-Executive Director

Amanda has over 35 years' experience in health and academia including CEO and non-executive directorship roles across health care delivery, clinical (critical care), public health, research, ethics, and corporate governance advisory. Amanda is current chairman of the National Blood Authority Australia and a non-executive director of Camp Quality. Following her twelve-month Harvard Advanced Leadership Fellowship in 2017, she was invited back as a Visiting Scientist to join a partnership project between Harvard Chan School of Public Health and Harvard Business School (HBS). She is also an advisory council member of the HBS-led Impact-Weighted Accounts Initiative to which she brings her experience in business and academia to environmental, social, governance (ESG) measurement and long-term value creation.

# RESEARCH REPORT

## Duxton Farms Ltd

Diversification is Key

### Financial Statements and Ratios

Figures (AUD (millions))

Profit and Loss	FY21	FY22	FY23F	FY24F	FY25F
Revenue	17.8	16.6	8.1	28.0	26.3
EBITDA	3.4	-3.3	-7.1	5.2	4.3
Dep'n and amort'n	-1.1	-1.0	-1.6	-1.6	-1.6
EBIT	2.4	-4.3	-8.7	3.5	2.6
NPBT	1.3	-5.2	-10.4	1.6	0.3
Net Income	1.4	-3.2	-7.8	1.2	0.2

Balance Sheet	FY21	FY22	FY23F	FY24F	FY25F
Cash	3.6	0.0	0.0	0.0	0.0
Receivables	0.1	0.5	0.2	0.8	0.8
Inventories	4.0	4.7	2.1	7.3	6.9
Biological Assets	9.2	8.3	8.3	8.3	8.3
Land & PPE	99.4	136.1	136.2	136.3	136.4
Right of Use Assets	0.0	0.0	3.9	3.2	2.6
Intangible Assets	8.2	8.2	8.3	8.4	8.4
Investments	0.5	2.4	2.4	2.5	2.5
Other Assets	1.0	0.3	0.2	-0.9	-1.2
<b>Total Assets</b>	<b>125.9</b>	<b>160.4</b>	<b>161.6</b>	<b>165.8</b>	<b>164.6</b>
Payables	6.2	3.6	1.7	6.0	5.6
Debt	25.6	29.6	38.7	38.6	39.3
Bank Overdraft	0.0	5.3	13.0	0.0	0.0
Lease Liability	0.0	0.0	3.9	3.3	2.7
Other liabilities	6.9	14.4	5.0	17.5	16.5
<b>Total Liabilities</b>	<b>38.6</b>	<b>52.9</b>	<b>62.3</b>	<b>65.4</b>	<b>64.1</b>
Paid up Equity	74.0	71.9	71.8	71.8	71.8
Reserves	19.3	44.9	44.9	44.9	44.9
Retained Earnings	-6.1	-9.2	-17.5	-16.3	-16.2
<b>Total Equity</b>	<b>87.3</b>	<b>107.6</b>	<b>99.2</b>	<b>100.4</b>	<b>100.5</b>

Cash Flow	FY21	FY22	FY23F	FY24F	FY25F
<b>Net operating cashflow</b>	<b>8.4</b>	<b>1.6</b>	<b>(25.9)</b>	<b>1.1</b>	<b>1.3</b>
Interest paid	-1.1	-0.9	-1.7	-1.9	-2.3
Dividends paid	-2.7	0.0	0.0	0.0	-0.1
(incr) / decr in investments	-0.1	-1.9	0.0	0.0	0.0
(incr) / decr in PP&E excl. dep	-7.6	-35.7	0.9	0.9	0.9
Other investing cash flows	1.8	-1.6	0.0	-1.1	-0.4
<b>Net investing cashflow</b>	<b>-5.9</b>	<b>-39.2</b>	<b>0.8</b>	<b>-0.2</b>	<b>0.4</b>
Net incr / (decr) in borrowings	-7.0	9.3	16.8	-13.1	0.7
Net incr / (decr) in equity	7.7	23.5	-0.1	0.0	0.0
Other finance cash flows	4.1	-3.2	-8.2	1.2	0.1
<b>Net finance cashflow</b>	<b>4.8</b>	<b>29.6</b>	<b>8.4</b>	<b>-11.9</b>	<b>0.8</b>
Net incr / (decr) in cash	3.6	-8.9	-18.3	-13.0	0.0

Financial Ratios	FY21	FY22	FY23F	FY24F	FY25F
<b>Growth</b>					
Revenue growth	67.2%	-6.7%	-51.5%	247.3%	-6.0%
NPAT growth	142.3%	-516.2%	-99.5%	115.5%	-80.7%

Profitability Ratios	FY21	FY22	FY23F	FY24F	FY25F
EBITDA Margin	19.3%	-19.8%	-87.9%	18.4%	16.2%
NPAT Margin	5.3%	-23.5%	-96.9%	4.3%	0.9%
Return on Assets	1.1%	-2.0%	-4.8%	0.7%	0.1%
Return on Equity	1.6%	-2.9%	-7.9%	1.2%	0.2%

Balance Sheet Ratios	FY21	FY22	FY23F	FY24F	FY25F
Net Debt (ND) / Equity	25.2%	27.5%	39.0%	38.4%	39.0%
ND / ND + Equity	20.1%	21.6%	28.0%	27.8%	28.1%
Net Interest Cover	2.1x	-4.7x	-5.1x	1.8x	1.1x

Trading Metrics	FY21	FY22	FY23F	FY24F	FY25F
EV/EBITDA (x)	27.2x	-28.4x	-13.2x	18.1x	22.0x
EV/EBIT (x)	39.4x	-21.9x	-10.8x	26.4x	35.4x

All figures in AUD unless stated otherwise



## Duxton Farms Ltd

Diversification is Key

### ANALYST DISCLOSURE AND CERTIFICATION

Analyst remuneration is not linked to the research or rating outcome. Where financial products are mentioned, the Analyst(s) may hold the financial product(s) referred to in this document, but SWM considers such holdings not to be sufficiently material to compromise the recommendation or advice. Analyst holdings may change during the life of this document. The Analyst(s) certify that the views expressed in this document accurately reflect their personal, professional opinion about the matters and financial product(s) to which this document refers.

### GENERAL ADVICE WARNING, DISCLAIMER AND DISCLOSURE

**IMPORTANT INFORMATION:** This document has been prepared and published by Sequoia Wealth Management (ACN 002 314 310, AFSL No 472387) (SWM). SWM is part of the Sequoia Financial group Ltd (SFG) (ACN 091 744 884, ASX code: SEQ). Other members of SFG include Morrison Securities Ltd, Sequoia Asset Management, InterPrac Financial planning, and Sequoia Super.

Copyright 2021. The Contents contained in this report are owned by SWM and are protected by the Copyright Act 1968 and the copyright laws of other countries. The material contained in this report may not be copied, reproduced, republished, posted, transmitted, or distributed in any way without prior written permission from SWM. Modification of the materials for any other purpose is a violation of the copyrights and other proprietary rights of SWM.

Please read the following before making any investment decision about any financial product mentioned in this document.

**GENERAL ADVICE WARNING:** *Past Performance is not a reliable indicator of future performance.* Any express or implied rating or advice presented in this document is limited to "General Advice" (as defined in the Corporations Act 2001(Cth)) and based solely on consideration of the investment merits of the financial product(s) alone, without taking into account the investment objectives, financial situation and particular needs ('financial circumstances') of any particular person. It does not constitute a recommendation to purchase, redeem or sell the relevant financial product(s). Before making an investment decision based on the recommendation(s) or advice, the reader must consider whether it is personally appropriate in light of his or her financial circumstances or should seek financial advice on its appropriateness. If our advice relates to the acquisition or possible acquisition of particular financial product(s), the reader should obtain and consider the Product Disclosure Statement for each financial product before making any decision about whether to acquire a financial product. SWM's Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. The information contained in this report is drawn from sources believed to be reliable, but the accuracy and completeness of the information is not guaranteed, nor in providing it does Sequoia Financial Group Ltd or its member companies assume any liability. This information is given as of the date appearing on the report and SWM assumes no obligation to update the information or advise on further developments relating to these securities.

This publication must not be distributed to retail investors outside of Australia.

**DISCLOSURE AT THE DATE OF PUBLICATION.** SWM does not hold the financial product(s) referred to in this document. SFG's representatives and/or their associates may hold the financial product(s) referred to in this document, but details of those holdings are not known to the analyst. From time-to-time SFG's representatives and/or their associates may trade those financial product(s) in a manner which is contrary to the recommendations mentioned in this document.

SWM has not in the previous 24 months been involved in a publicly announced transaction involving the payment of a fee to SWM by the company described in this report. SWM and/or SFG may have already or may seek to do business with companies covered in its research including (but not limited to) acting as Sole/Joint Lead Manager and Underwriter in securities for which it received fees or will receive fees for acting in this capacity.

Accordingly, SWM and/or SFG may have a conflict of interest which investors should consider before making an investment decision.

Regulatory Disclosure

This report was prepared solely by Sequoia Financial Group / Morrisons. ASX did not prepare any part of the report and has not contributed in any way to its content. The role of ASX in relation to the preparation of the research reports is limited to funding their preparation, by Sequoia / Morrisons, in accordance with the ASX Equity Research Scheme. ASX does not provide financial product advice. The views expressed in this research report may not necessarily reflect the views of ASX. To the maximum extent permitted by law, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by ASX as to the adequacy, accuracy, completeness, or reasonableness of the research reports.

**DISCLAIMERS:** This document is for the exclusive use of the person to whom it is provided by SWM and must not be used or relied upon by any other person. No representation, warranty or undertaking is given or made in relation to the accuracy of information contained in this document. SWM assumes no obligation to update this document or correct any inaccuracy which may become apparent after it is given. If any advice in this document relates to the acquisition or possible acquisition of a particular financial product, you should obtain a copy of and consider the product disclosure statement, prospectus, or other document for that financial product before making any decision. Save for any statutory liability that cannot be excluded, the SWM or its related entities accept no liability whatsoever for any loss or damage of any kind caused by any error in, inaccuracy, or omission from, this document or arising out of the use of all or part of these materials. This document is published for information purposes and is not to be construed as a solicitation or an offer to buy or sell securities or related financial products.