



**GrainCorp Malt**

**The Evolution of Australian Malt Supply :  
Meeting Future Challenges and Opportunities**

**10<sup>th</sup> June 2019**

**Paul Rigoni**

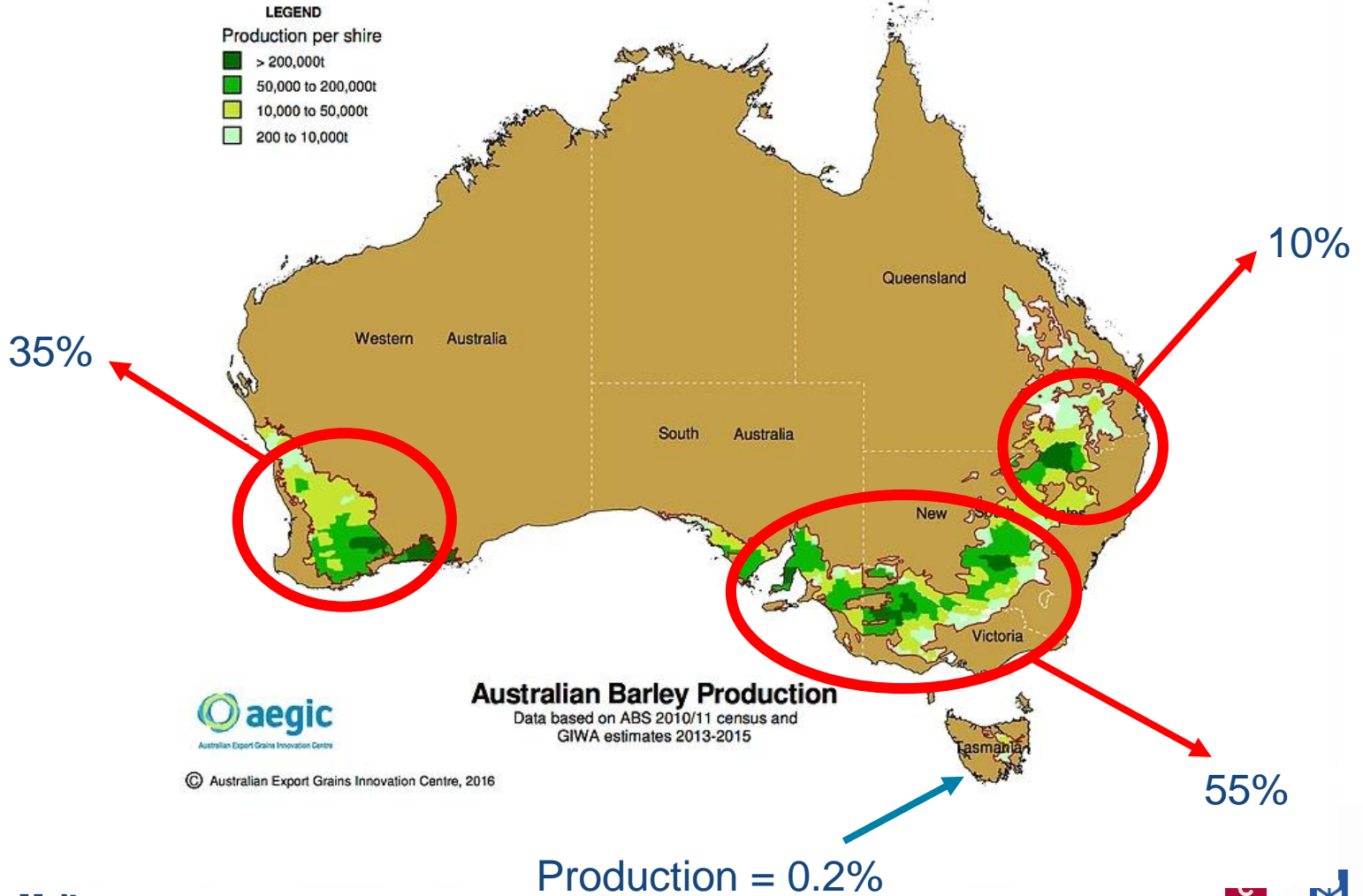


**GrainCorp**  
100 YEARS OF GROWTH

# Discussion Points

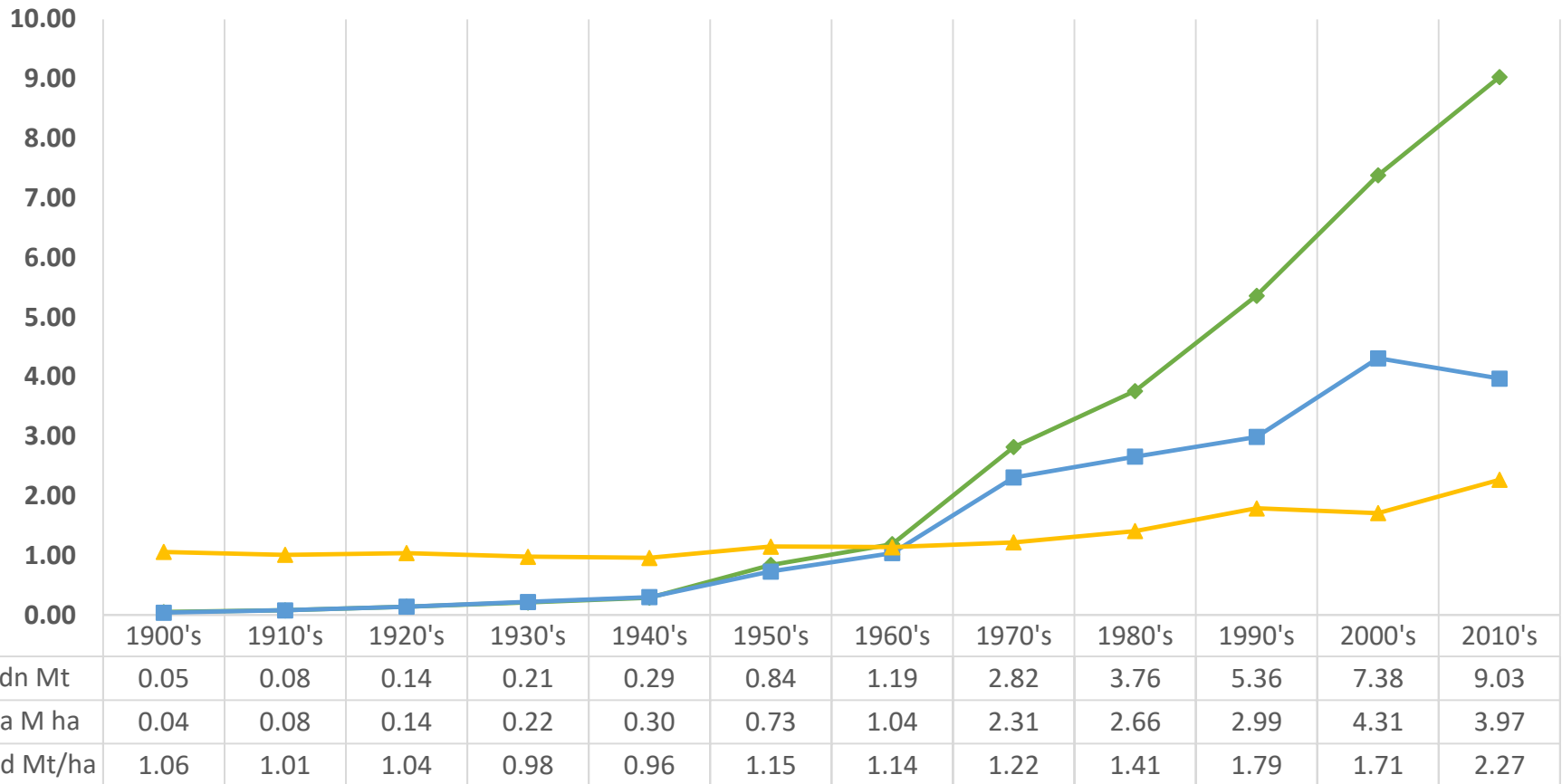
- Australian Barley Production Areas
- Australian Barley Production Trends & Evolution of Varieties
- Australian Malt Production, Markets & Trends
- Climate Challenges
- Industry Adaptation to Climate Change

# Australian Barley Production Areas and Key Zones



# 100 + Year Trend of Australian Barley Supply

## 100+ YEARS BARLEY PRODUCTION



Averaged ABARES / ABS data



# Australian Malting Varieties - A Timeline



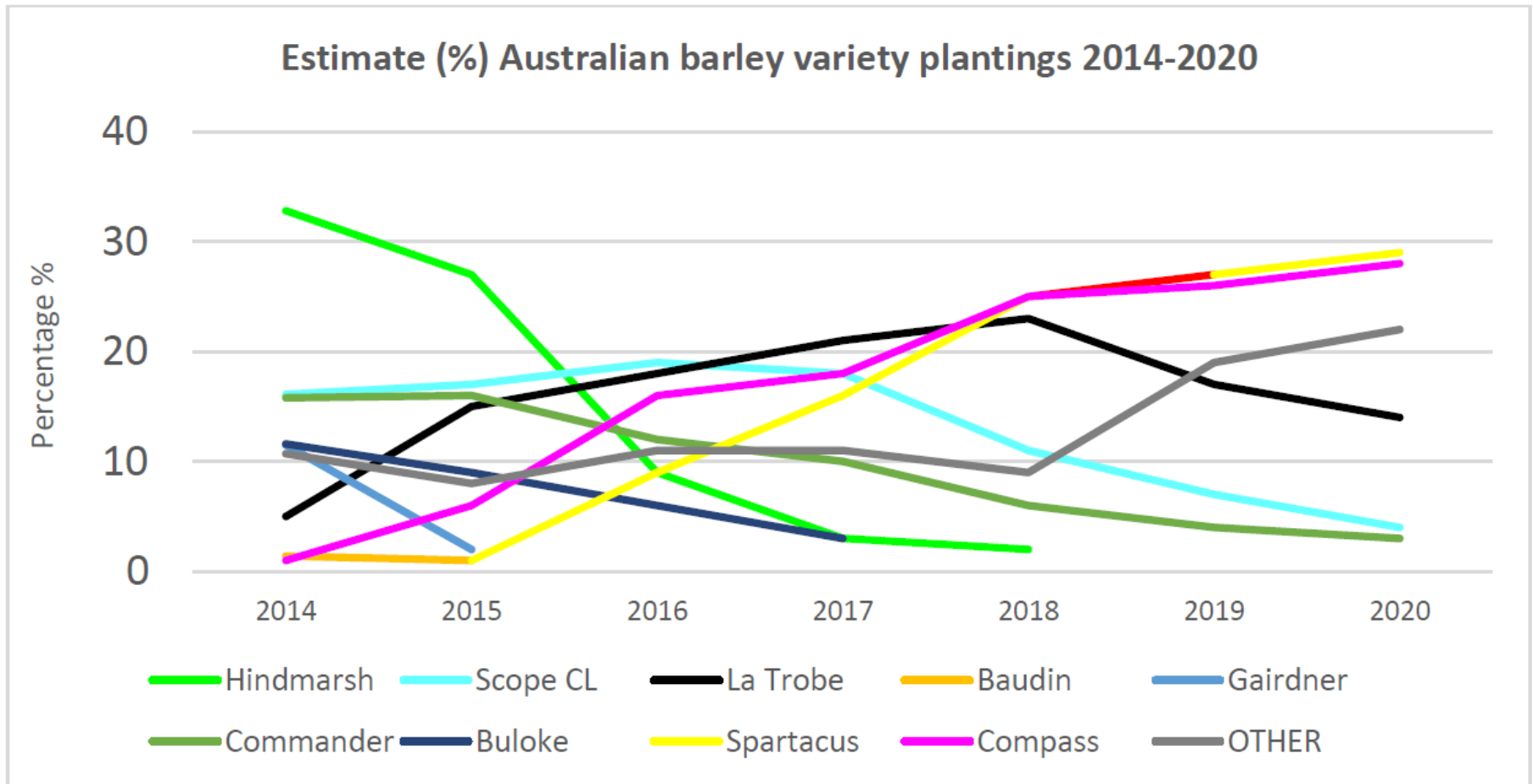
1968..... 1981-83 1989 1993 1998 2003 2005 2008 2012 .....2018

State Based Public Breeding Programs

Transition

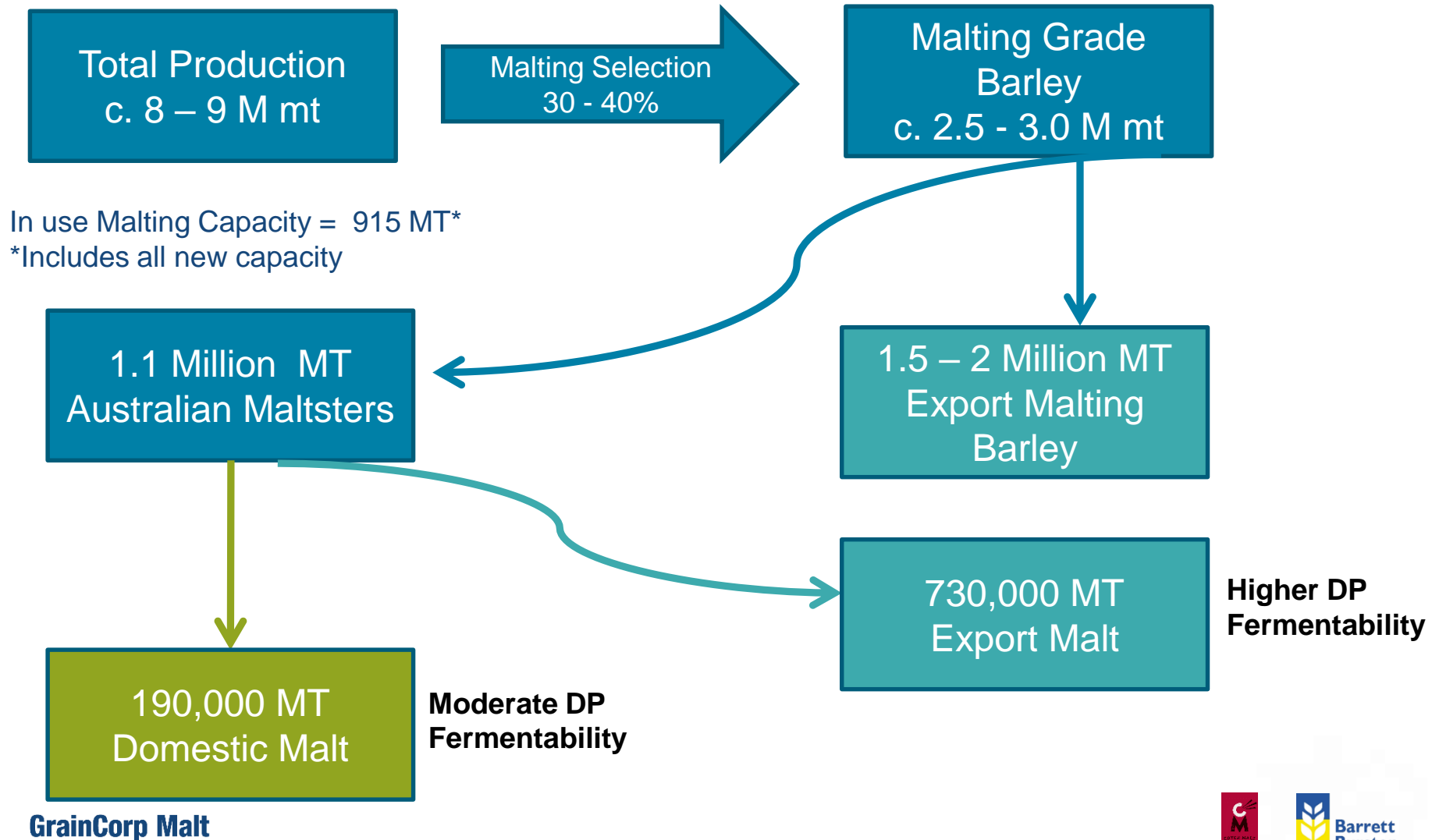
Private Breeding

# Recent Trends in Australian Barley Plantings



Source AEGIC

# Australian Malting Barley Supply and Demand



# Australian Malt Production (current- approx)



## Total Malt Production

BBM	250 k
Coopers	55 k
Cargill	410 k
Malteurop	200 k

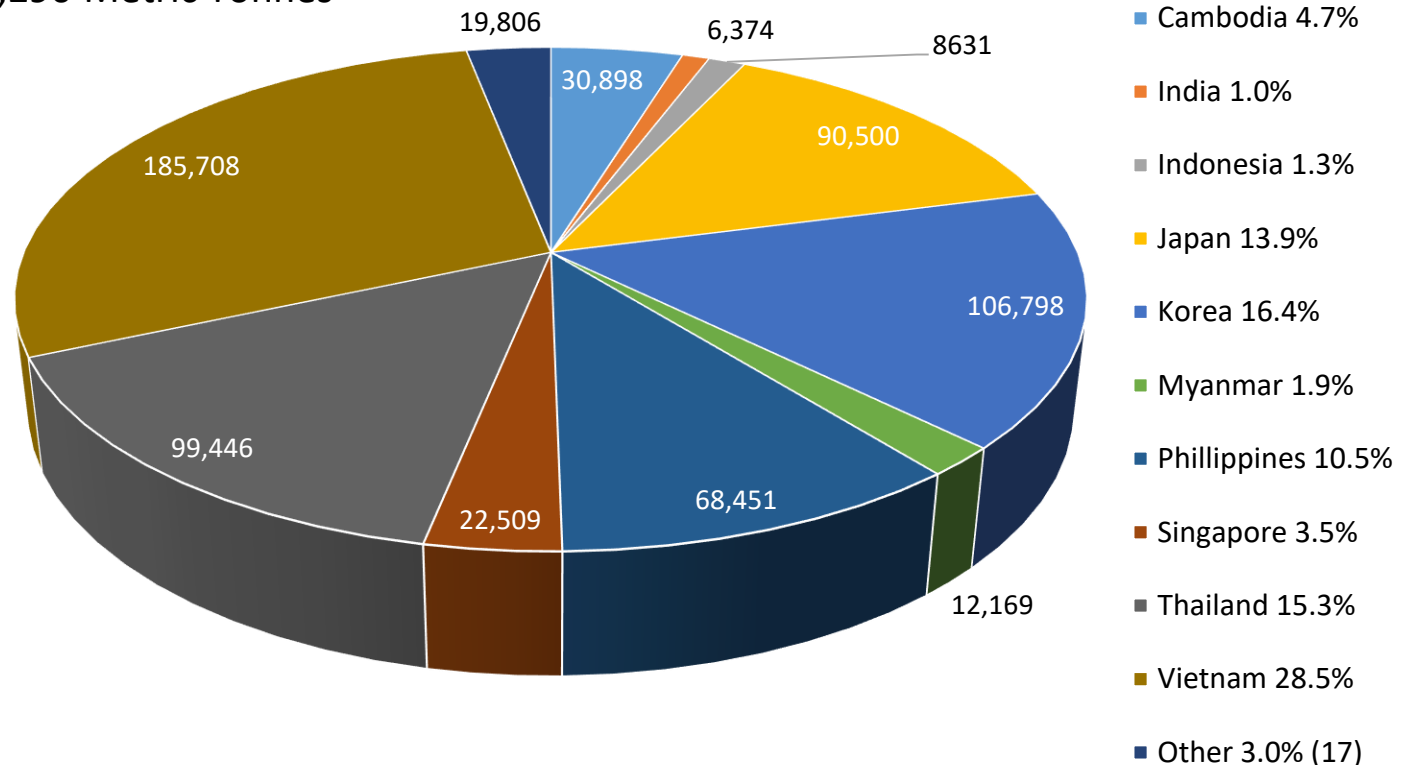
**Total = 915,000 MT (approximate.)**



# Australian Malt Exports – 2018 (non roasted)

Australian Malt Exports - Metric Tonnes

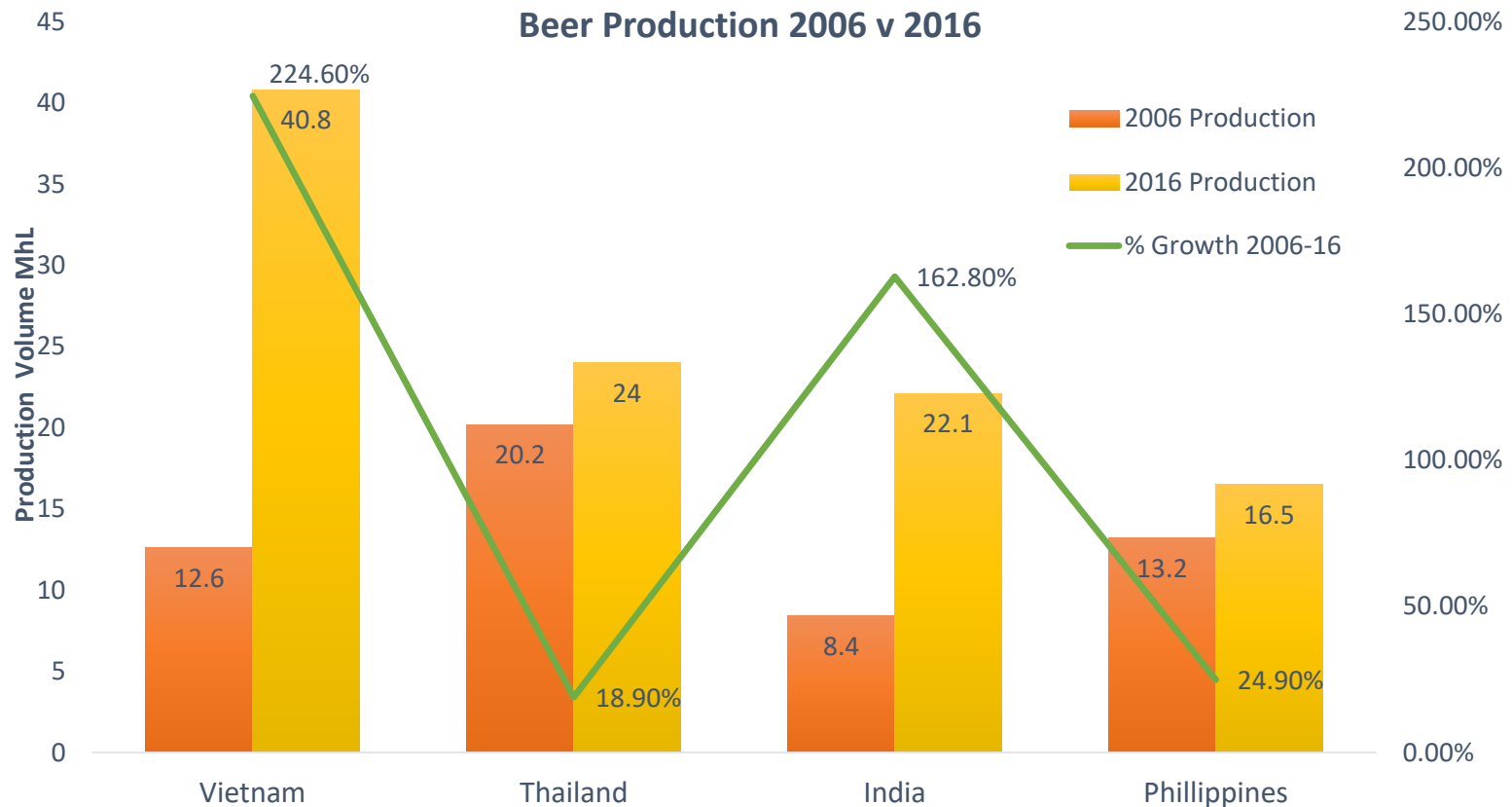
Total = 651,290 Metric Tonnes



Source ABS

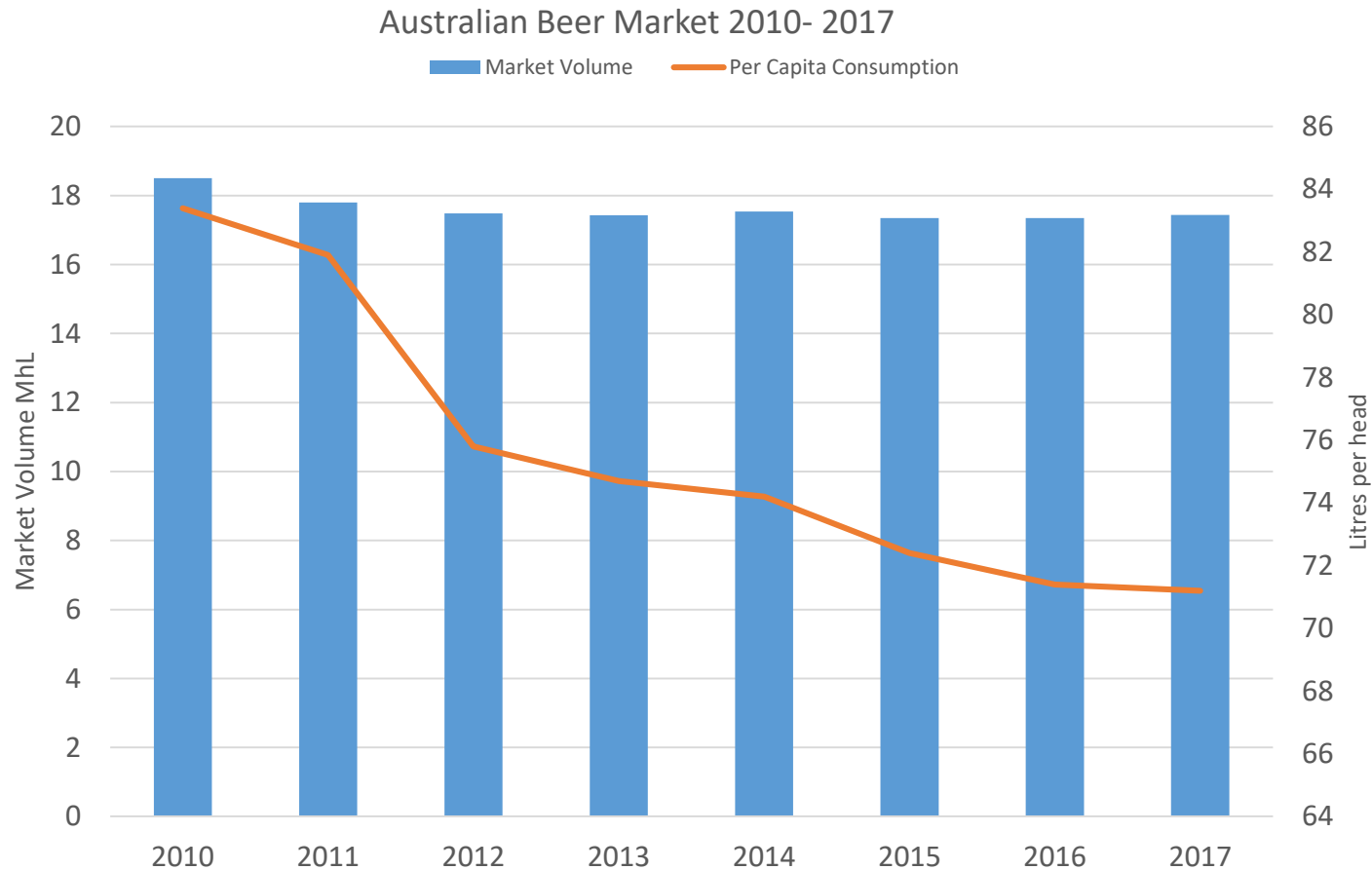
# Growth in Beer Production – Key Asian Markets

million hectolitres



Source : Kirin Holdings

# Australian Beer Market



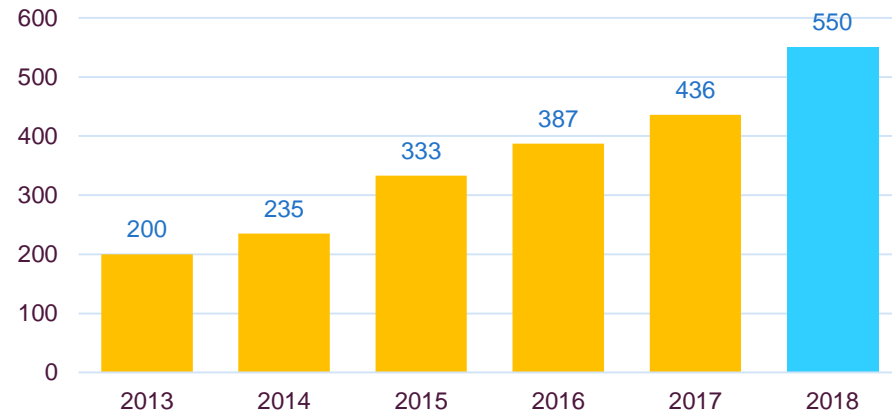
# Australian Craft Brewing Growth

- Independent Craft Brewers represented ‘ only 5.9% of market by volume in 2017-18  
Independent Brewer’s Assoc.
- “Large” Craft makes up c..65% of all Craft Sales Source Beverage Daily.com.
- Craft revenue expected at \$518 M in 2018-19 with annual growth of 5.6% through 2019 – 2024 Source .IBISworld
- Driven by demand for premium products.
- Higher malt inclusion rates
- Good for Maltsters – Market 30,000 MT

But as maltsters, need to adapt to demands...

- Looking for diversification of malt
- Alternative grains / new flavours
- Lower fermentability / FAN
- Single point of origination / local
- Heirloom varieties etc....

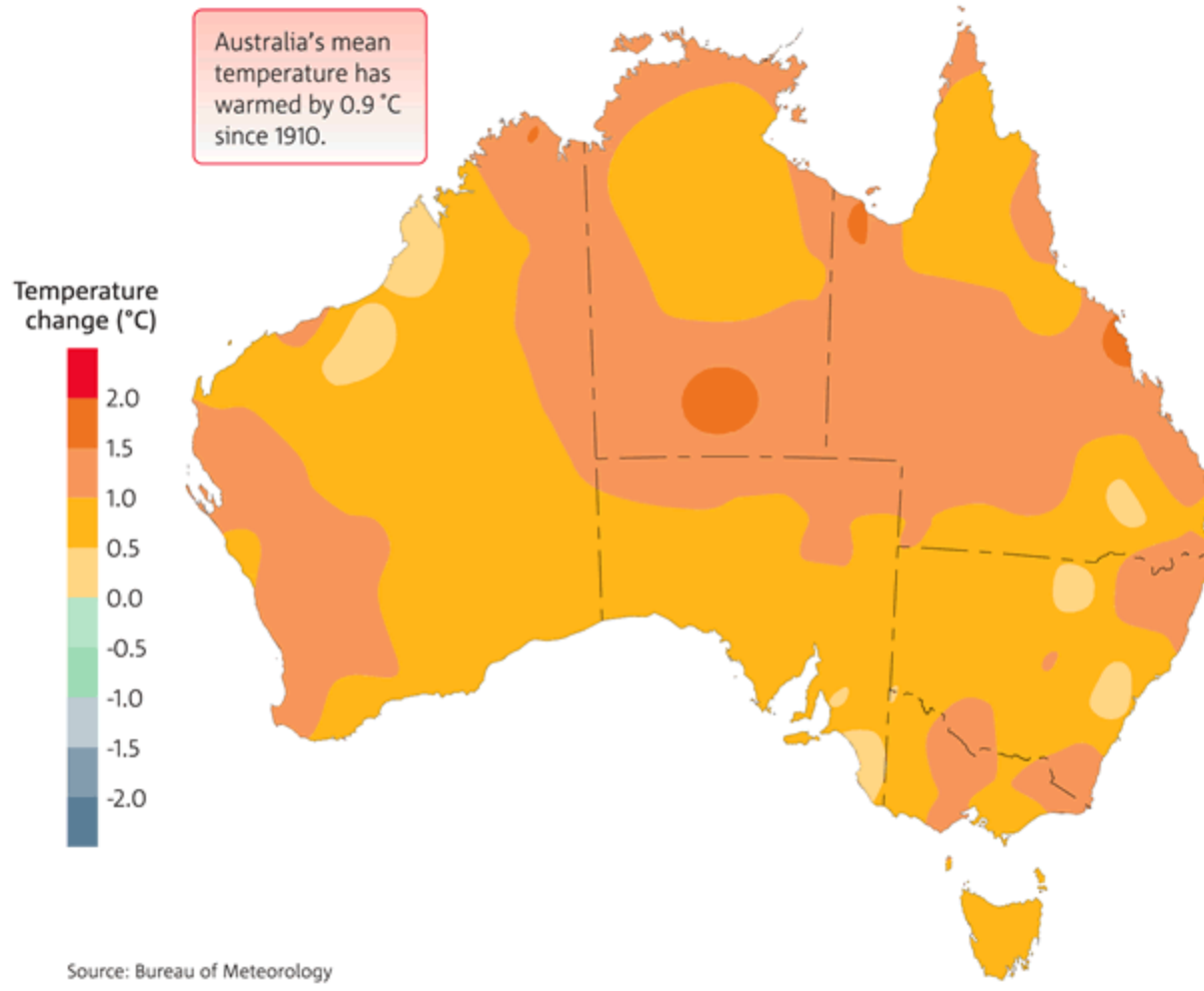
**Growth Rate - Number of Breweries - Australia**



Breakdown by State	
Australian Capital Territory	9
New South Wales	143
Northern Territory	4
Queensland	80
South Australia	49
Tasmania	33
Victoria	168
Western Australia	64

# Climate Change in Australia

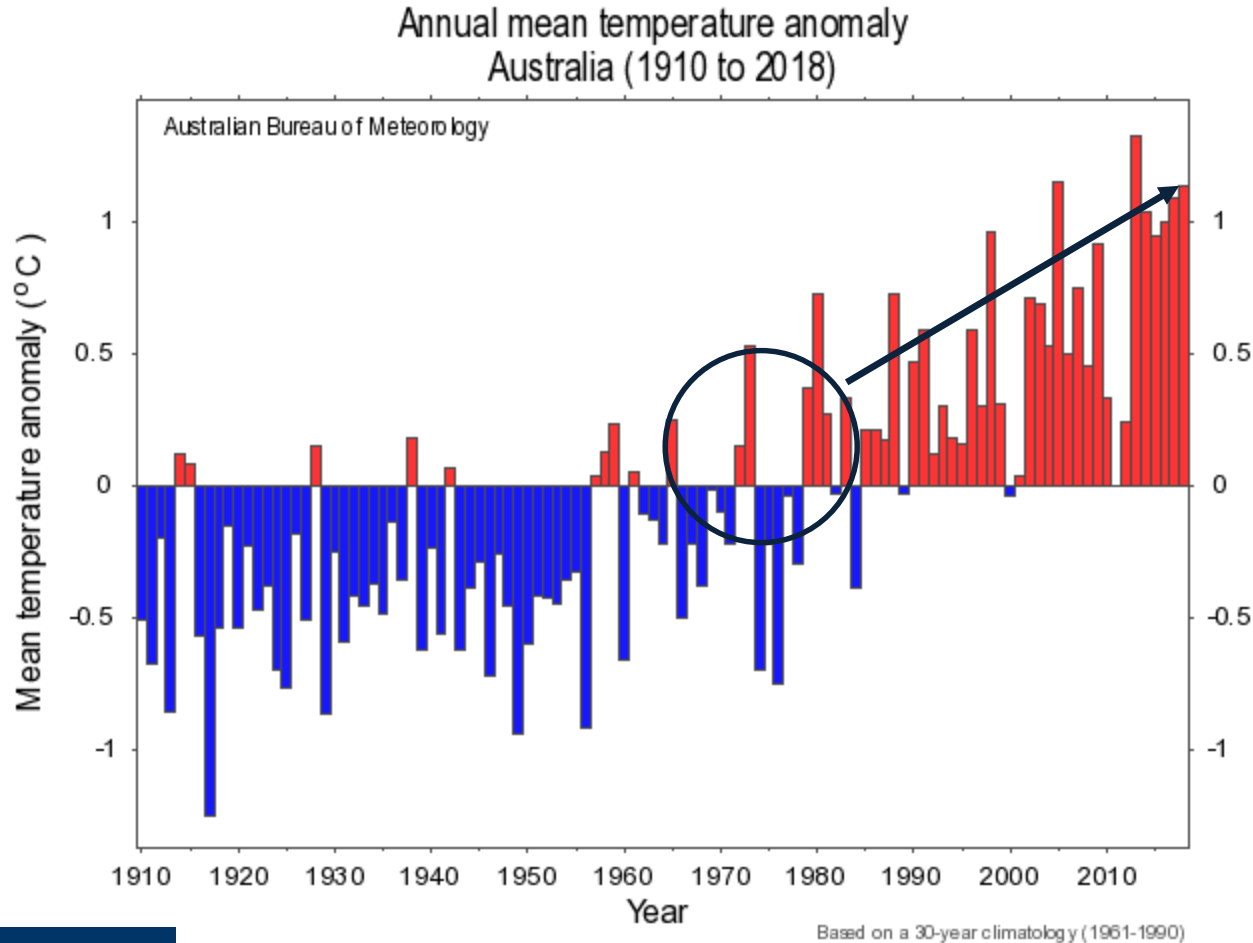
## Increase in Mean Temperature since 1910



# Climate Change in Australia

Deviation in Mean Temperature 1910 - 2018

(Annual against 30 year period 1961 - 1990)



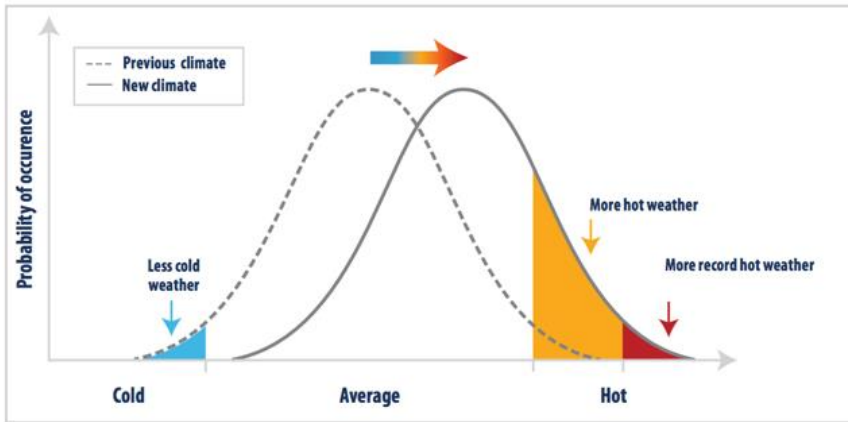
GrainCorp Malt



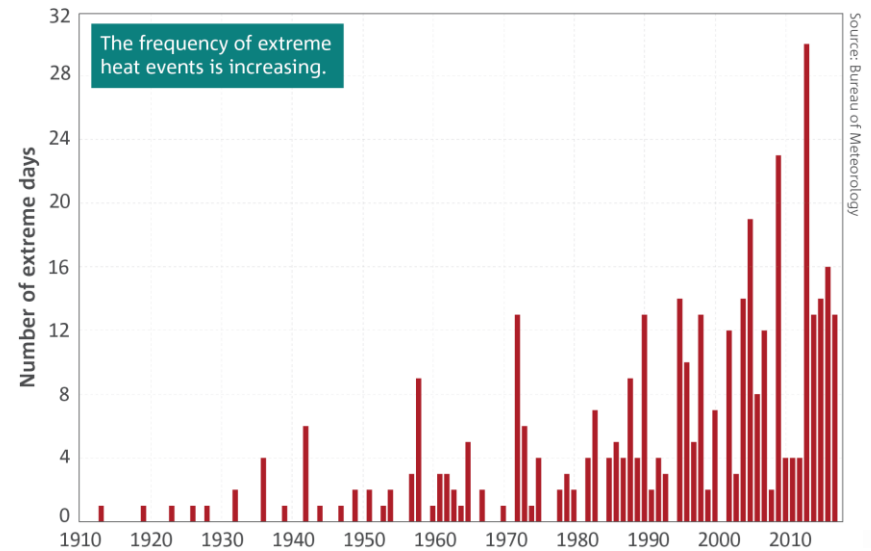
# Climate Change in Australia

## Predicted Increase in number of hot days

### Increase in Average Temperature

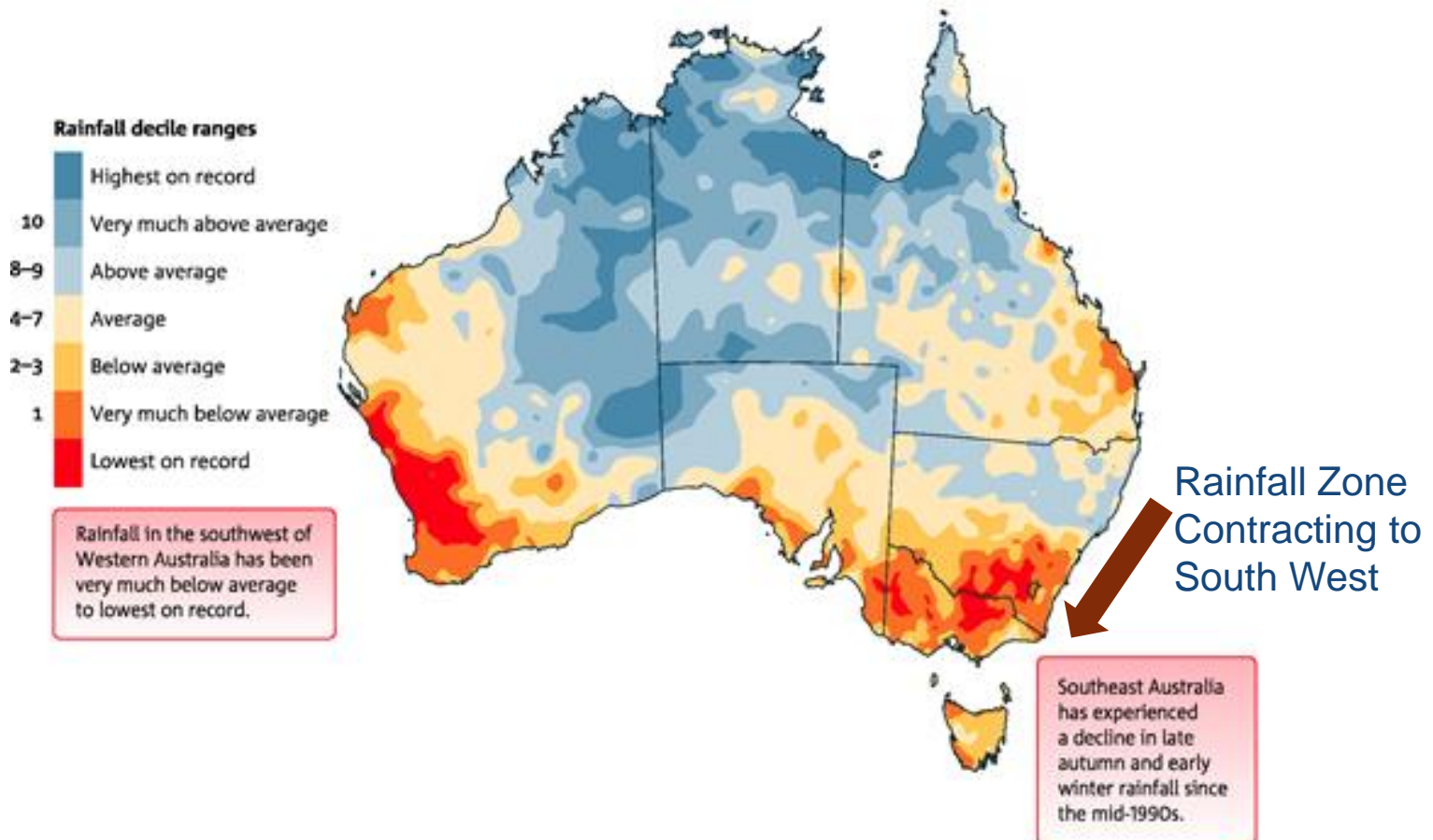


When average temperatures increase, the average temperature of "hot weather" and "record hot weather" will become even hotter. Source: IPCC, 2007



# Climate Change in Australia

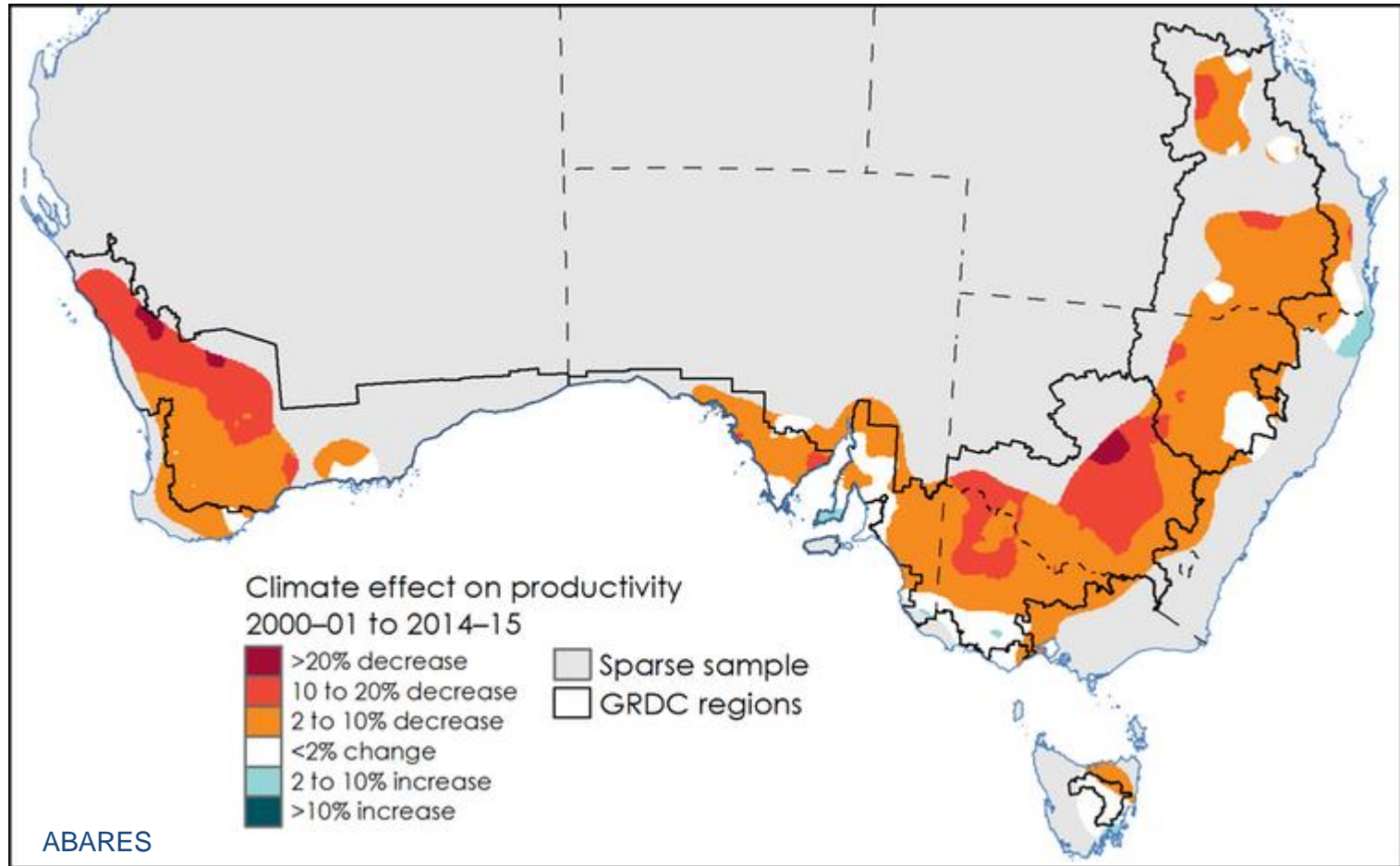
## Rainfall Trends in Southern Cropping Season (April – Nov) 1996-2016 Measured against Rainfall Record





# Climate Change in Australia

## Impact on Australian Crop Production –Estimates on TFP\*



# Climate Change in Australia

## Industry Adaptation to Climate Change

- Farmers routinely adopting “minimum till or “no-till” farming in order to conserve summer soil moisture in the face of reduced winter rainfall.



# Climate Change in Australia

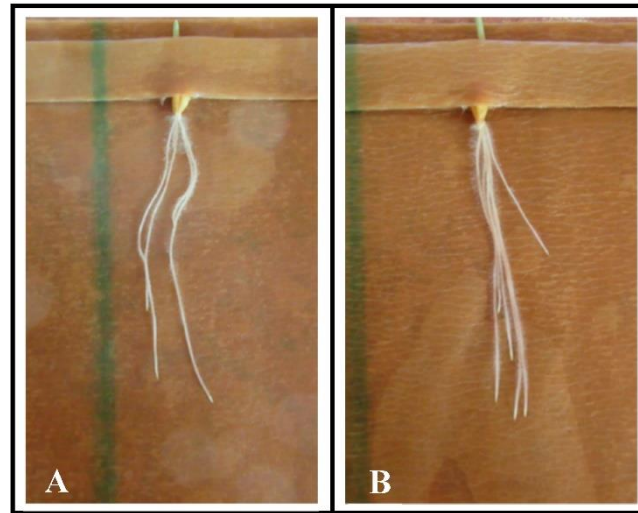
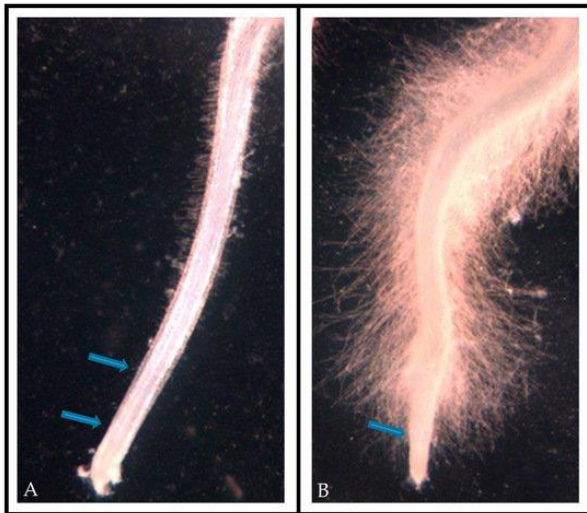
## Industry Adaptation to Climate Change

(Global ) Breeding Industry producing higher yielding barley varieties

- Better Plant Disease Resistance



- Better Drought Tolerance

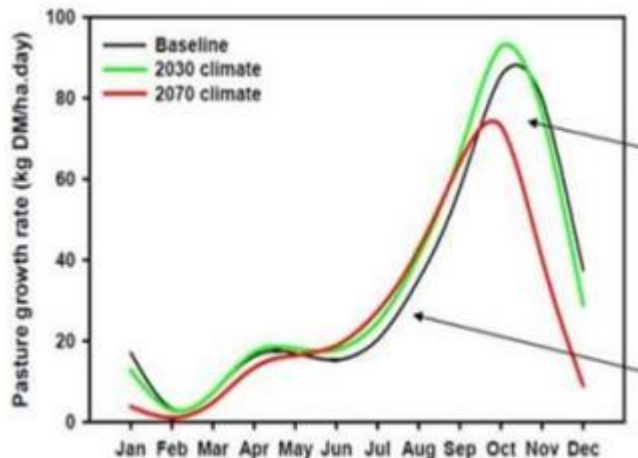


# Climate Change in Australia

## Industry Adaptation to Climate Change

Breeders adapting to Climate change.

- Shorter Growing Season – Breed earlier maturing / lower rainfall adapted varieties



Decline in Spring rain and increase in late season temperatures will contract the growing season

Growth rate must increase earlier in season to take advantage of early season rain. Grain fills before the onset of high temperatures

- Future breeding for Northern Australia where winter rainfall is increasing

# Climate Change in Australia

## Industry Adaptation to Climate Change

- Higher rainfall areas previously considered too wet for cropping has seen increased cropping activity in recent decades e.g South East Victoria.
- Maltsters and brewers playing their part by installing Waste Water Treatment Plants to conserve water.

WWTP BBM  
Geelong



# ขอบคุณ

