



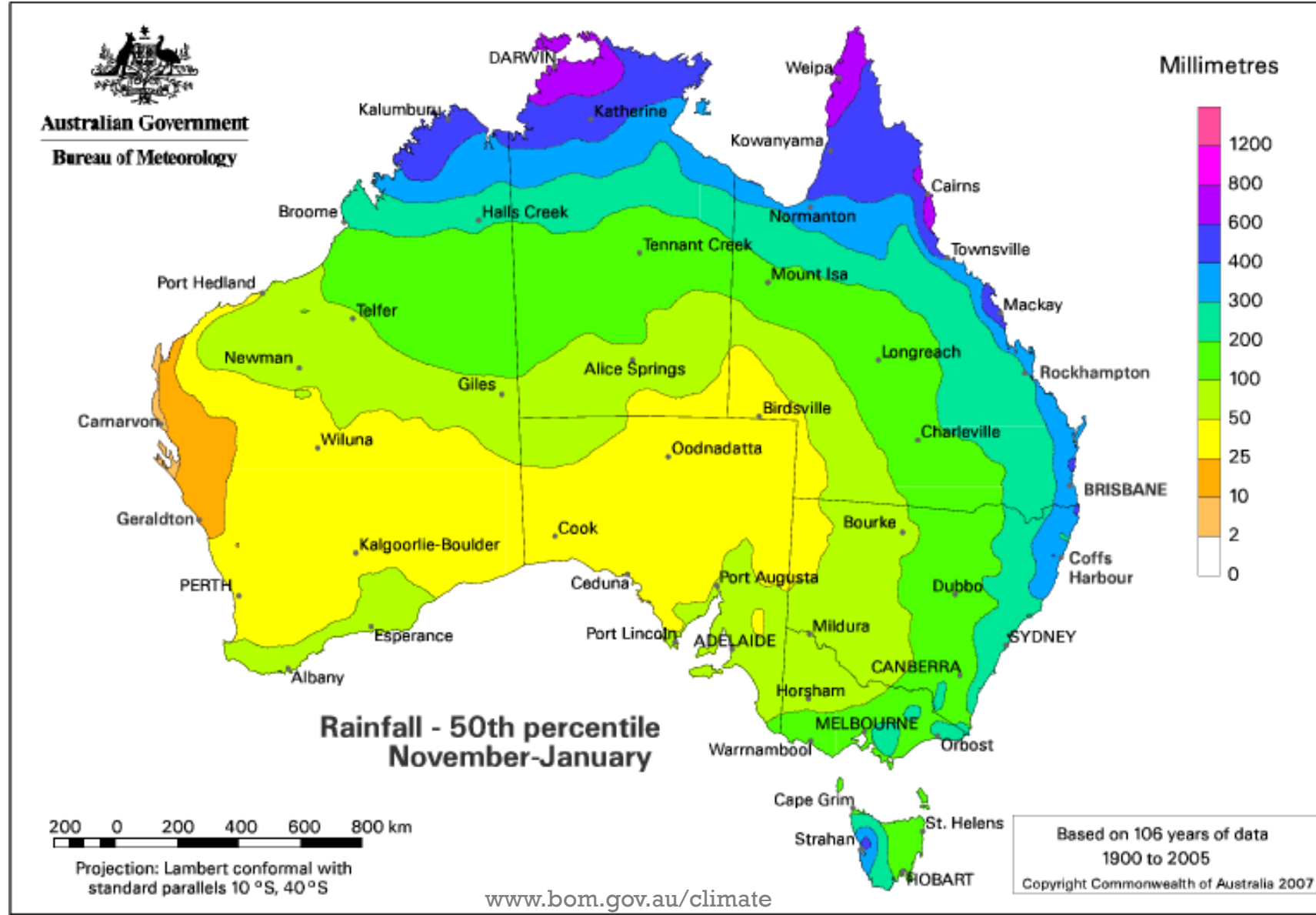
# AUSTRALIA AGRICULTURAL TOUR





# AUSTRALIA AGRICULTURAL OVERVIEW

- Due to its large land base, Australia's agriculture varies regional based on weather and rainfall condition.
- The majority of our trip was spent in Queensland and part of it included New South Wales
- Queensland's agriculture is made up of:
  - Beef
  - Field Crops
  - Horticulture
  - Sheep – Meat and Wool
  - Pigs
  - Poultry
  - Dairy



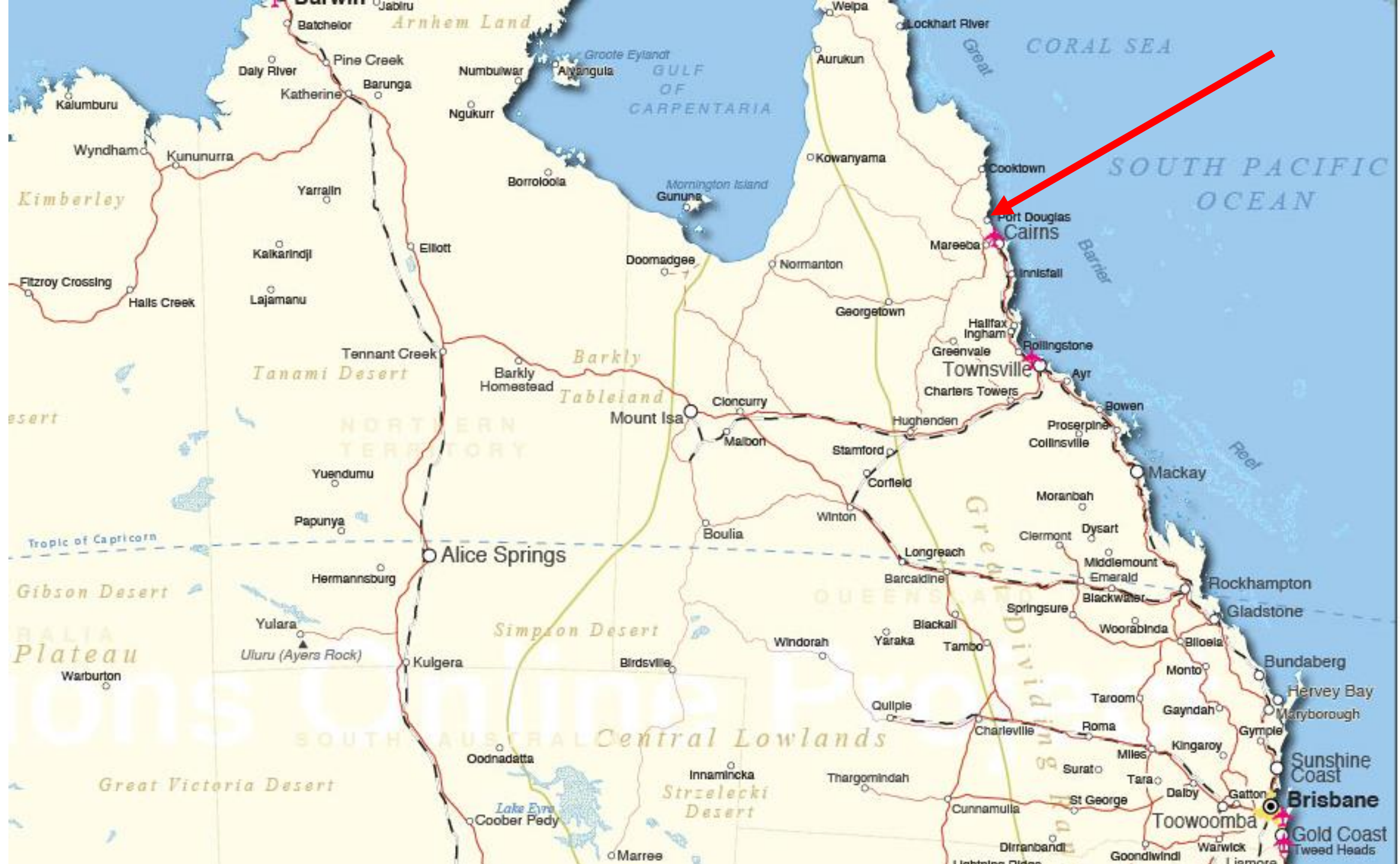


# DAY 1: LOS ANGELES

- During a layover in L.A. on our way to Australia we took a bus tour of the city
- We walked on the Hollywood Walk of Fame, saw the Hollywood sign, Chinese Theatre, and the Kennedy Memorial









# DAYS 2 & 3: THE RAINFOREST

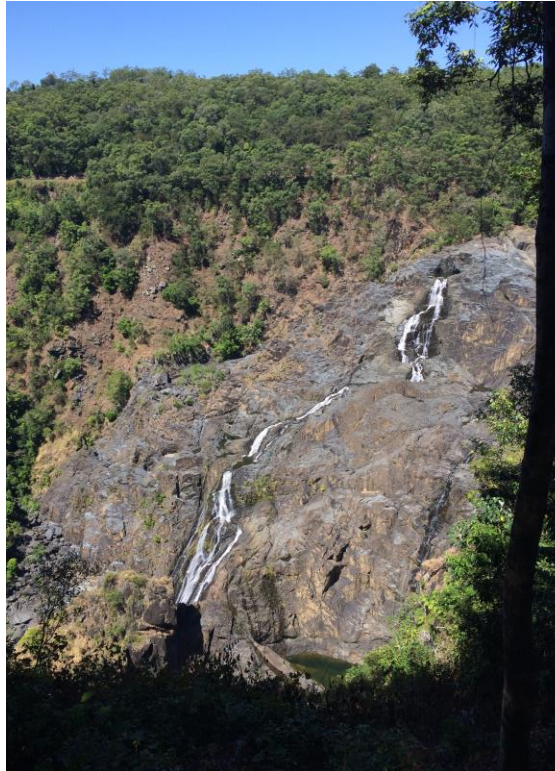
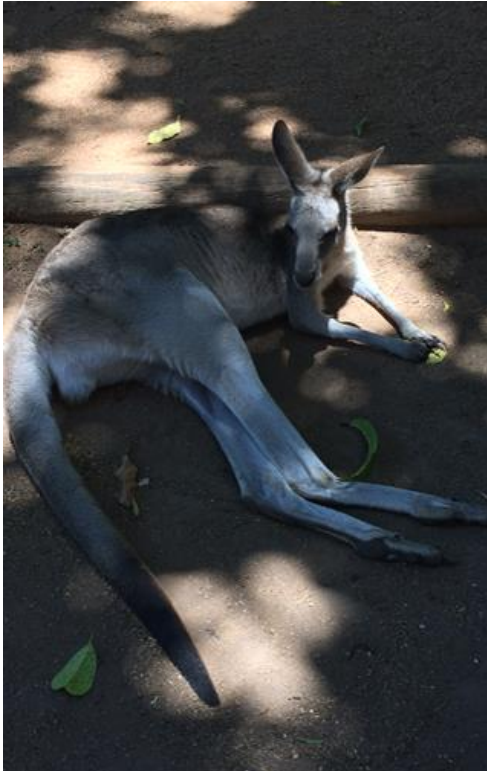
- The wet tropics of Australia has an annual temperature around 24°C
- Average annual rainfall is 2800 mm (110 inches), but can be as high as 10,000mm (394 inches)
- The rainforest cover 2 million hectares (4,942,107ac) in Australia, which is actually only 0.3% of the continent
- Aboriginal culture here dates back to more than 10,000 years ago





## Our time in the rainforest included:

- Rainforest train tour
  - 15 hand made tunnels
  - 37 bridges
  - Sea Level to 328m up the range
- Skyrail ride
- Aboriginal presentation
- Amphibious vehicle
- Barron Gorge and Falls
- Kuranda Zoo







# DAY 4:

## THE GREAT BARRIER REEF

- 1 of the 7 wonders of the natural world
  - The world's largest coral reef
- Contains over 3000 individual reef systems and coral cays
- The Foothills group viewed the reef with the option of snorkeling, submarine, helicopter, snuba, and scuba







Home made damper

# DAY 5: WETHERBY STATION

- Outback cattle station “ranch”
- Established in 1878
- Restored homestead
- Droughtmaster beef cattle and tourist destination



- On the western edge of the “Great Divide”
- The Great Divide is the name given to the mountain range which separates the coastal cities from inland Australia
- It is the third longest land-based range in the world





# DAY 5: KUREEN FARMS

- Blueberry, macadamia nut, banana, and avocado farm
- 9,000 – 10,000 blueberry trees
- The blueberries are grown in pots as the soil is not suited for them
- Tarps protect from the sun and wind
- Irrigated using drip irrigation



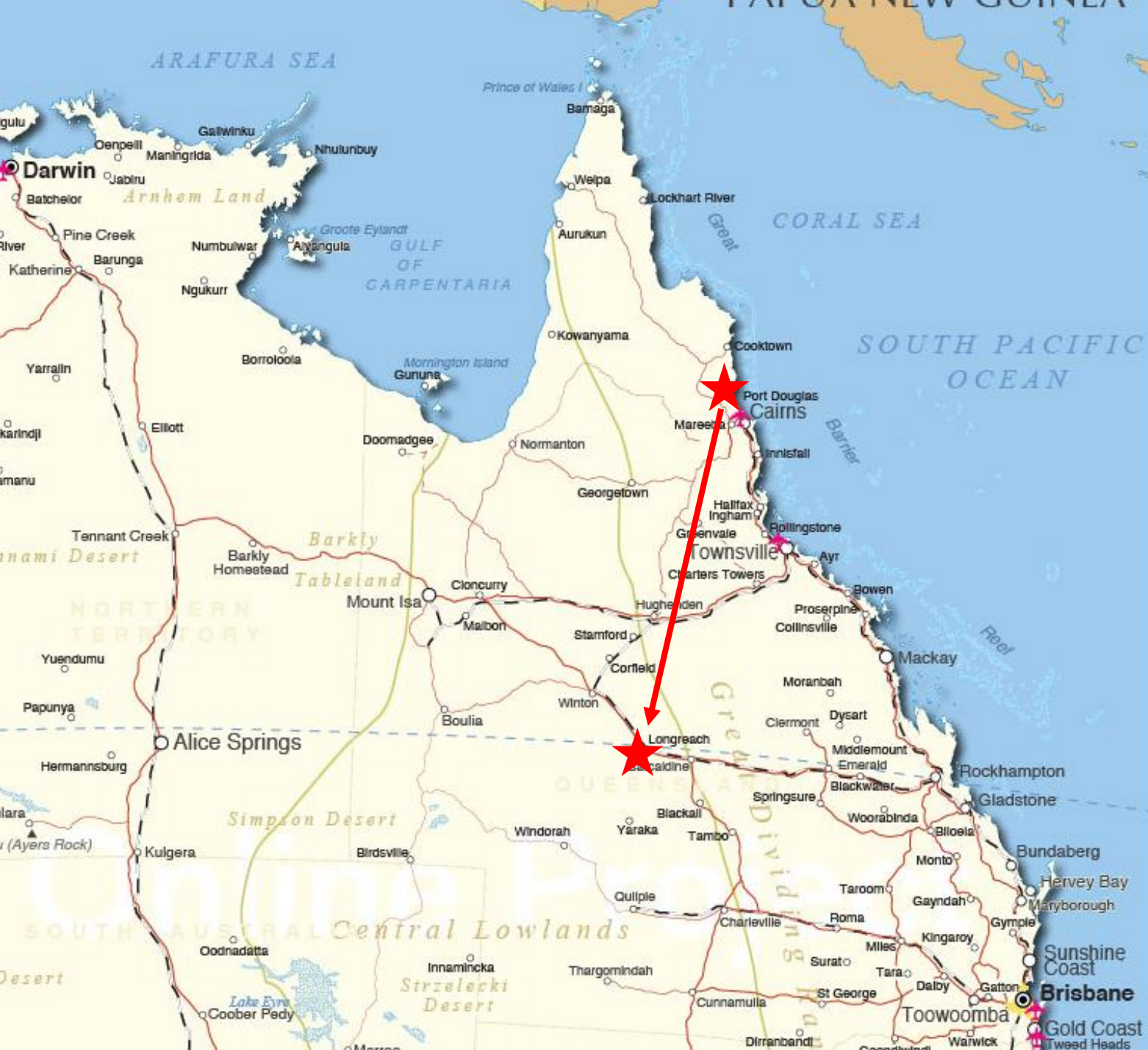
Macadamia Nut Harvester



- Macadamia trees are native to Queensland
- They take approximately 8 years to produce nuts
- Harvest is done by a machine which simply scoops them off the ground
- The outer husk is removed and the seed is sold as a commodity







The group then flew from  
Cairns to Longreach; the  
Australian “outback”





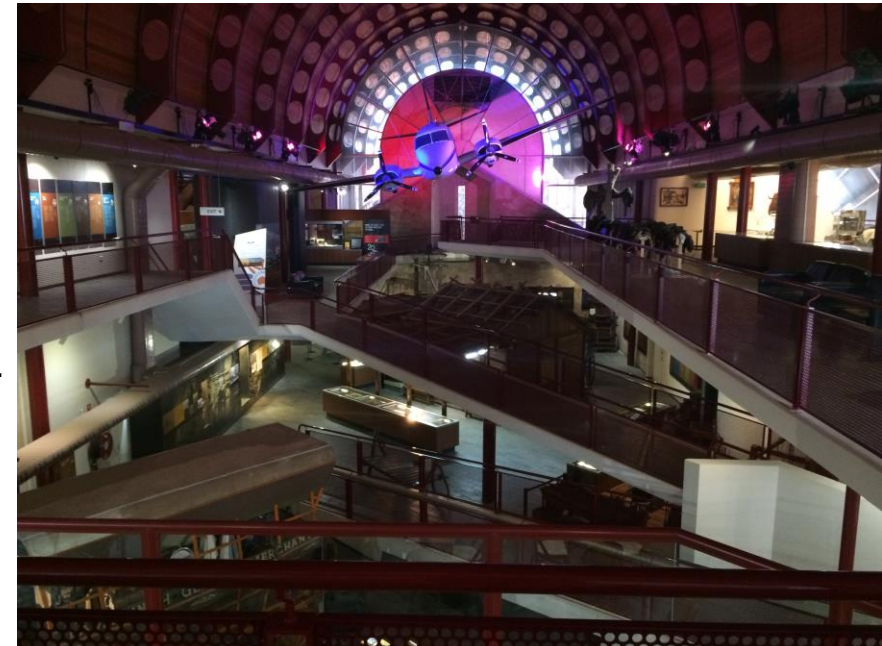


# DAY 6-7: THE AUS OUTBACK, LONGREACH

- Longreach is named after the “long reach” of the Thomson River which it sits
- The town was founded in 1887, and 1892 it grew with the railway
- On the Tropic of Capricorn
- Population of 3,137
- Main industries are cattle, sheep, and more recently tourism



- Ilfracombe – The Wellshot Hotel
- Cowboy Poetry
- Stockman's Hall of Fame







# WALKER'S CAMDEN STATION

- Nuffield Scholar James Walker
- Established in the 1920s
- Visited by Queen Elizabeth, Prince Philip, Princess Kate, and Prince William
- Tour of their station, home and corrals
- Steak dinner in the outback





# DAY 8 — LONGREACH PASTORAL COLLEGE

- Hands-on learning for “jackaroos” & “ringers”
- 46 full-time students
- 40,000 acres
- Beef and Cattle, Northern Beef Industries Program, Sheep and Wool, Equine, Rural Operations, and Short Courses
- 40 years old



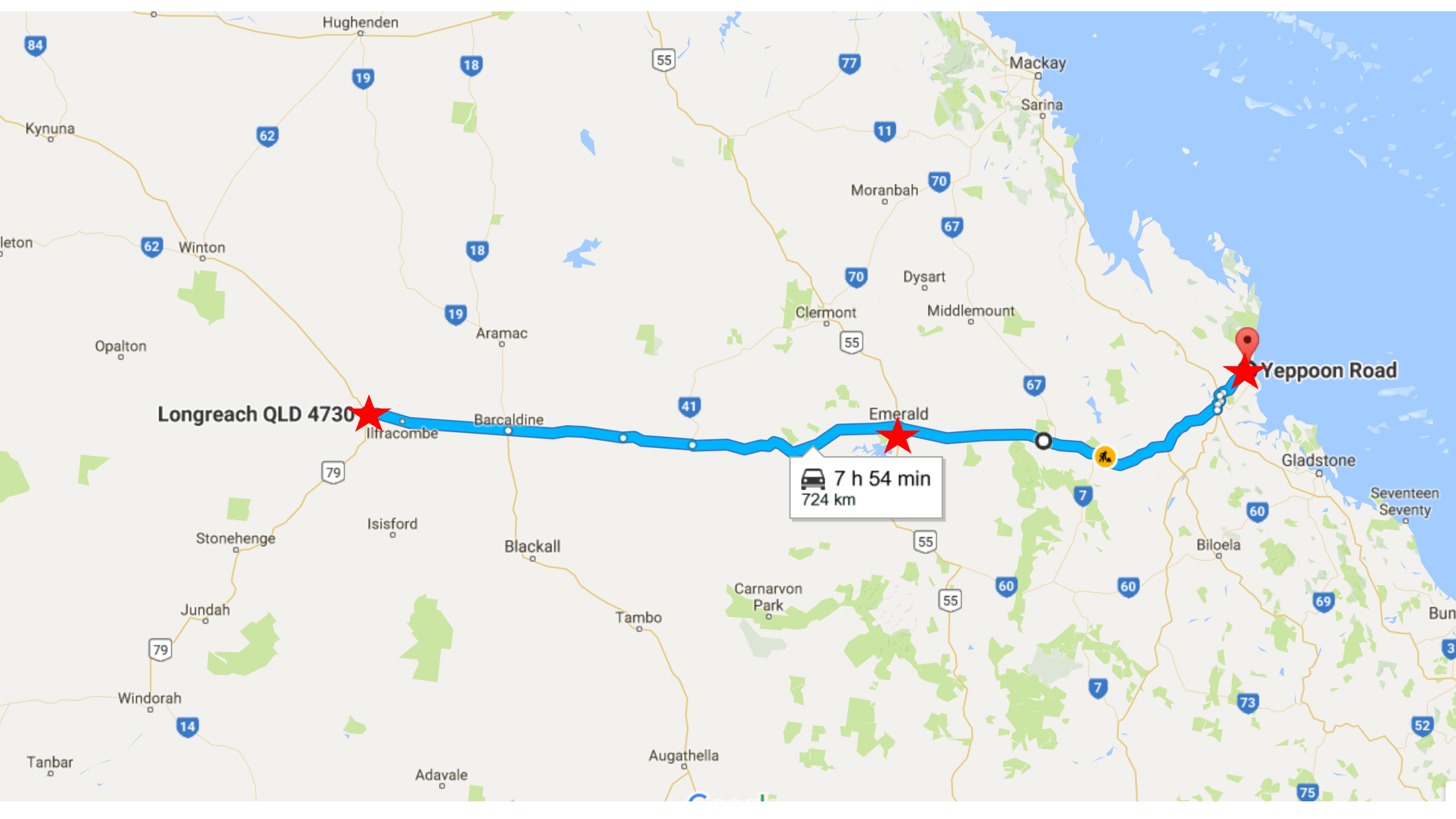


# LATROBE STATION


- Coming out of a 5 year drought, the Brown family agreed to let us out to visit their ranch
- Droughtmaster cattle
- They just got rain and are bringing the cattle back from further south
- They run approximately 1 cow per 25 acres
- Paddocks are extremely large because of this
- The area has very dramatic climate changes
  - Drought, Flooding, and Fires are very real occurrences







Longreach QLD 4730

 7 h 54 min  
724 km

Yeppoon Road





# DAY 9: MELTON GRAZING

- In between Longreach and Emerald
- Rotational Grazing
- Grazing Plan
- Electric fence powered by solar panels
- Grass-fed Cattle
- Purebred Red Brahman Bulls and Brangus
- Organic, EU, MSA, and PCAS Accredited



Buffel Grass

DATE	CELL	CELL SIZE	CELL NO.	CELL AREA	CELL TYPE	CELL STATUS	CELL COMMENTS
1/1/15	1	100m x 100m	1	10000m <sup>2</sup>	1	1	1
2/1/15	2	100m x 100m	2	10000m <sup>2</sup>	2	2	2
3/1/15	3	100m x 100m	3	10000m <sup>2</sup>	3	3	3
4/1/15	4	100m x 100m	4	10000m <sup>2</sup>	4	4	4
5/1/15	5	100m x 100m	5	10000m <sup>2</sup>	5	5	5
6/1/15	6	100m x 100m	6	10000m <sup>2</sup>	6	6	6
7/1/15	7	100m x 100m	7	10000m <sup>2</sup>	7	7	7
8/1/15	8	100m x 100m	8	10000m <sup>2</sup>	8	8	8
9/1/15	9	100m x 100m	9	10000m <sup>2</sup>	9	9	9
10/1/15	10	100m x 100m	10	10000m <sup>2</sup>	10	10	10
11/1/15	11	100m x 100m	11	10000m <sup>2</sup>	11	11	11
12/1/15	12	100m x 100m	12	10000m <sup>2</sup>	12	12	12
13/1/15	13	100m x 100m	13	10000m <sup>2</sup>	13	13	13
14/1/15	14	100m x 100m	14	10000m <sup>2</sup>	14	14	14
15/1/15	15	100m x 100m	15	10000m <sup>2</sup>	15	15	15
16/1/15	16	100m x 100m	16	10000m <sup>2</sup>	16	16	16
17/1/15	17	100m x 100m	17	10000m <sup>2</sup>	17	17	17
18/1/15	18	100m x 100m	18	10000m <sup>2</sup>	18	18	18
19/1/15	19	100m x 100m	19	10000m <sup>2</sup>	19	19	19
20/1/15	20	100m x 100m	20	10000m <sup>2</sup>	20	20	20
21/1/15	21	100m x 100m	21	10000m <sup>2</sup>	21	21	21
22/1/15	22	100m x 100m	22	10000m <sup>2</sup>	22	22	22
23/1/15	23	100m x 100m	23	10000m <sup>2</sup>	23	23	23
24/1/15	24	100m x 100m	24	10000m <sup>2</sup>	24	24	24
25/1/15	25	100m x 100m	25	10000m <sup>2</sup>	25	25	25
26/1/15	26	100m x 100m	26	10000m <sup>2</sup>	26	26	26
27/1/15	27	100m x 100m	27	10000m <sup>2</sup>	27	27	27
28/1/15	28	100m x 100m	28	10000m <sup>2</sup>	28	28	28
29/1/15	29	100m x 100m	29	10000m <sup>2</sup>	29	29	29
30/1/15	30	100m x 100m	30	10000m <sup>2</sup>	30	30	30
31/1/15	31	100m x 100m	31	10000m <sup>2</sup>	31	31	31
1/2/15	32	100m x 100m	32	10000m <sup>2</sup>	32	32	32
2/2/15	33	100m x 100m	33	10000m <sup>2</sup>	33	33	33
3/2/15	34	100m x 100m	34	10000m <sup>2</sup>	34	34	34
4/2/15	35	100m x 100m	35	10000m <sup>2</sup>	35	35	35
5/2/15	36	100m x 100m	36	10000m <sup>2</sup>	36	36	36
6/2/15	37	100m x 100m	37	10000m <sup>2</sup>	37	37	37
7/2/15	38	100m x 100m	38	10000m <sup>2</sup>	38	38	38
8/2/15	39	100m x 100m	39	10000m <sup>2</sup>	39	39	39
9/2/15	40	100m x 100m	40	10000m <sup>2</sup>	40	40	40
10/2/15	41	100m x 100m	41	10000m <sup>2</sup>	41	41	41
11/2/15	42	100m x 100m	42	10000m <sup>2</sup>	42	42	42
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18/2/15	49	100m x 100m	49	10000m <sup>2</sup>	49	49	49
19/2/15	50	100m x 100m	50	10000m <sup>2</sup>	50	50	50
20/2/15	51	100m x 100m	51	10000m <sup>2</sup>	51	51	51
21/2/15	52	100m x 100m	52	10000m <sup>2</sup>	52	52	52
22/2/15	53	100m x 100m	53	10000m <sup>2</sup>	53	53	53
23/2/15	54	100m x 100m	54	10000m <sup>2</sup>	54	54	54
24/2/15	55	100m x 100m	55	10000m <sup>2</sup>	55	55	55
25/2/15	56	100m x 100m	56	10000m <sup>2</sup>	56	56	56
26/2/15	57	100m x 100m	57	10000m <sup>2</sup>	57	57	57
27/2/15	58	100m x 100m	58	10000m <sup>2</sup>	58	58	58
28/2/15	59	100m x 100m	59	10000m <sup>2</sup>	59	59	59
29/2/15	60	100m x 100m	60	10000m <sup>2</sup>	60	60	60
30/2/15	61	100m x 100m	61	10000m <sup>2</sup>	61	61	61
31/2/15	62	100m x 100m	62	10000m <sup>2</sup>	62	62	62
1/3/15	63	100m x 100m	63	10000m <sup>2</sup>	63	63	63
2/3/15	64	100m x 100m	64	10000m <sup>2</sup>	64	64	64
3/3/15	65	100m x 100m	65	10000m <sup>2</sup>	65	65	65
4/3/15	66	100m x 100m	66	10000m <sup>2</sup>	66	66	66
5/3/15	67	100m x 100m	67	10000m <sup>2</sup>	67	67	67
6/3/15	68	100m x 100m	68	10000m <sup>2</sup>	68	68	68
7/3/15	69	100m x 100m	69	10000m <sup>2</sup>	69	69	69
8/3/15	70	100m x 100m	70	10000m <sup>2</sup>	70	70	70
9/3/15	71	100m x 100m	71	10000m <sup>2</sup>	71	71	71
10/3/15	72	100m x 100m	72	10000m <sup>2</sup>	72	72	72
11/3/15	73	100m x 100m	73	10000m <sup>2</sup>	73	73	73
12/3/15	74	100m x 100m	74	10000m <sup>2</sup>	74	74	74
13/3/15	75	100m x 100m	75	10000m <sup>2</sup>	75	75	75
14/3/15	76	100m x 100m	76	10000m <sup>2</sup>	76	76	76
15/3/15	77	100m x 100m	77	10000m <sup>2</sup>	77	77	77
16/3/15	78	100m x 100m	78	10000m <sup>2</sup>	78	78	78
17/3/15	79	100m x 100m	79	10000m <sup>2</sup>	79	79	79
18/3/15	80	100m x 100m	80	10000m <sup>2</sup>	80	80	80
19/3/15	81	100m x 100m	81	10000m <sup>2</sup>	81	81	81
20/3/15	82	100m x 100m	82	10000m <sup>2</sup>	82	82	82
21/3/15	83	100m x 100m	83	10000m <sup>2</sup>	83	83	83
22/3/15	84	100m x 100m	84	10000m <sup>2</sup>	84	84	84
23/3/15	85	100m x 100m	85	10000m <sup>2</sup>	85	85	85
24/3/15	86	100m x 100m	86	10000m <sup>2</sup>	86	86	86
25/3/15	87	100m x 100m	87	10000m <sup>2</sup>	87	87	87
26/3/15	88	100m x 100m	88	10000m <sup>2</sup>	88	88	88
27/3/15	89	100m x 100m	89	10000m <sup>2</sup>	89	89	89
28/3/15	90	100m x 100m	90	10000m <sup>2</sup>	90	90	90
29/3/15	91	100m x 100m	91	10000m <sup>2</sup>	91	91	91
30/3/15	92	100m x 100m	92	10000m <sup>2</sup>	92	92	92
31/3/15	93	100m x 100m	93	10000m <sup>2</sup>	93	93	93
1/4/15	94	100m x 100m	94	10000m <sup>2</sup>	94	94	94
2/4/15	95	100m x 100m	95	10000m <sup>2</sup>	95	95	95
3/4/15	96	100m x 100m	96	10000m <sup>2</sup>	96	96	96
4/4/15	97	100m x 100m	97	10000m <sup>2</sup>	97	97	97
5/4/15	98	100m x 100m	98	10000m <sup>2</sup>	98	98	98
6/4/15	99	100m x 100m	99	10000m <sup>2</sup>	99	99	99
7/4/15	100	100m x 100m	100	10000m <sup>2</sup>	100	100	100





# DAY 10: 2PH FARMS

- Citrus Farm – mandarins, lemons, and limes
  - Returns in citrus takes approximately 8 years
  - Minimum wage for workers is \$22.60/hour
  - Over 500 seasonal workers
  - Most seasonal workers come from Papua New Guinea, Indonesia, Malaysia, and the Philippines
- Grape Farm – green grapes
  - 160 grape pickers
  - Trim all small grapes off (purely aesthetics)
  - Packed in sulphur and at 4°C





# SORRELL HILLS, DUARINGA

- Grain and cattle farm
- 27,000ac, 5,500ac of cropland
- 1000 certified organic cattle
- Sorghum, corn, mung beans, wheat, and chickpeas



1,100 ac paddock





# DAY 11: VELLA FARM

- Ray Vella, Nuffield Scholar – studied beef genetics and pasture management
- 18,000ac – with some bordering the ocean
- 3000 Brahman cross cattle
- Ray and his wife have established their own Brahman stud
- The family lives off-grid, approximately 2 hours from town
- They have their own live-in teacher for their 3 kids
- They use wind and solar energy for electricity

Cotton seed soaked in molasses is used as fattener



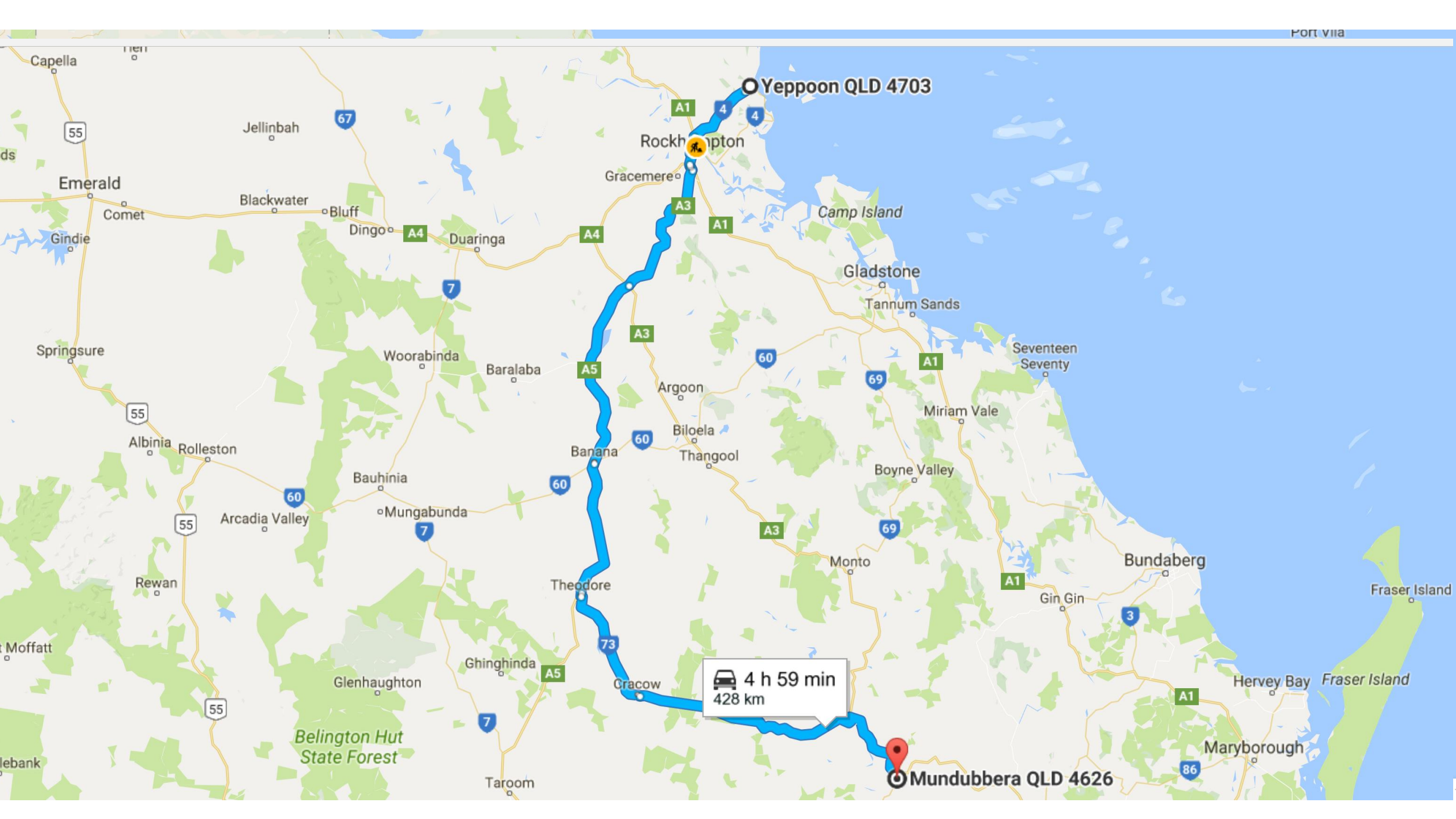


# DAY 12: CROCODILE FARM

- Koorana Crocodile Farm is an approved farm under the Australian Government's strategic conservation program
- Opened in 1981 – first commercial crocodile farm in Queensland
- Originally started out as a means of removing dangerous crocodiles
- Currently have over 3000 crocodiles at their farm
- Females produce between 40-60 eggs
- Meat/leather crocodiles are harvested around 3-4 years old
- Crocodile leather is the most durable leather in the world
- Koorana is home to the world's second largest crocodile in captivity at 10cm shy of the world record of 5.48 m (17 ft 11 in)







Yeppoon QLD 4703

4 h 59 min  
428 km

Mundubbera QLD 4626



# DAY 13: ROSEHALL STATION

- Kara Knudsen, Nuffield Scholar
  - Studied large scale artificial insemination techniques for northern cattle herds
- Santa Gertrudis Cattle
- Forest Country and Native Pastures
- Genetics focused
- “Calf or Carcass” rule
- Fixed Time Artificial Insemination used extensively
- Bulls are tested annually and non-performing breeders are culled
- Over 15km of river is fenced off to enhance water quality, biodiversity, and animal health



Dip Used to Remove Ticks





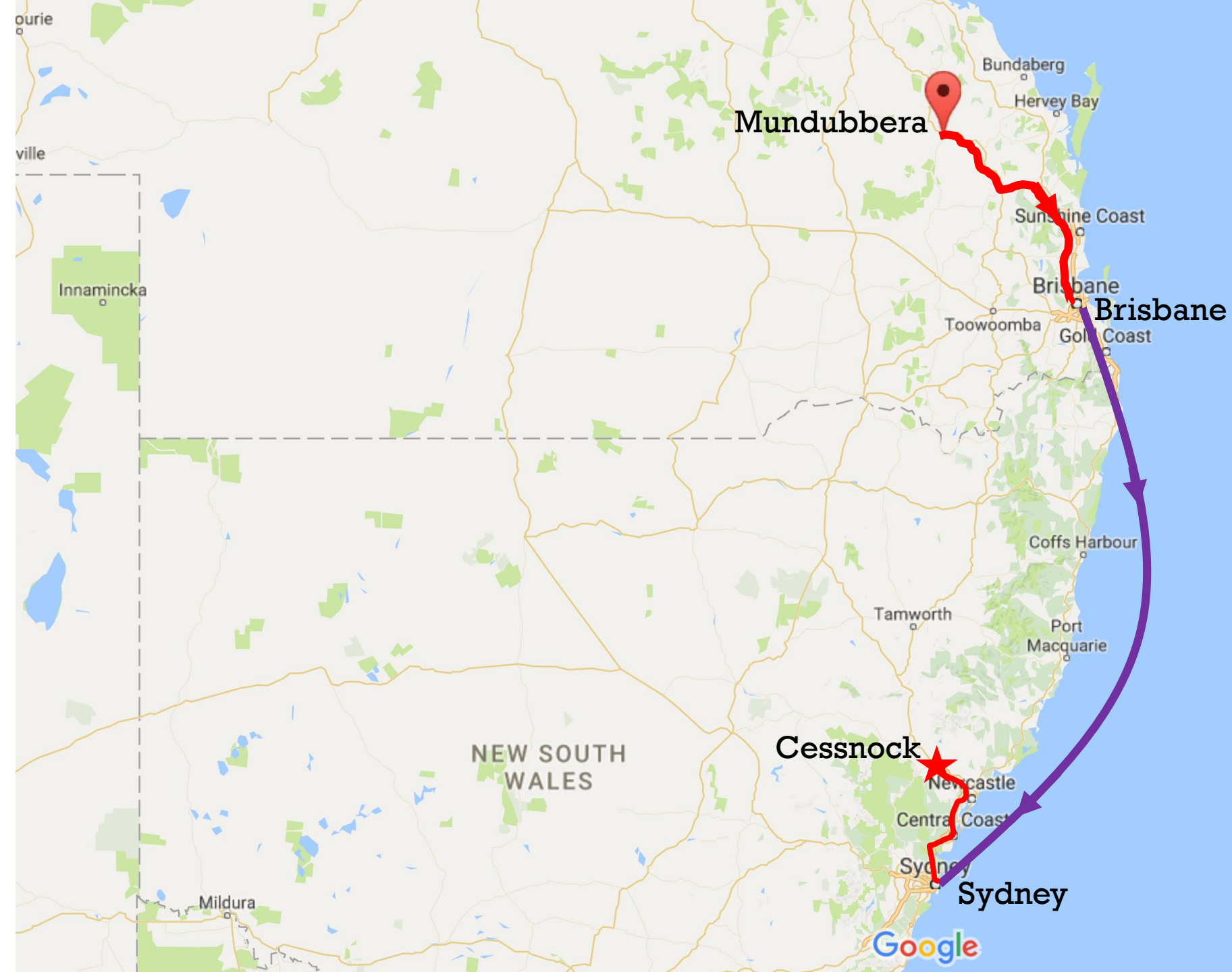
# DAY 14: GLENDEN BULLOCK TEAM



- Bullock's were traditionally used to clear the forest land for agriculture and development
- History dates back to 1795 in Sydney, New South Wales for hauling building material
- Traditionally used for logging and transporting essential food and station supplies to isolated areas
- Bullocks were used because they were less excitable, tougher, and more dependable than horses
- Team was controlled by a "Bullocky" who would use a whip and commands to indicate direction and keep the bullocks in line









# DAY 15: Tocal College

- Tocal is a historic agricultural property settled in 1822
- The college was started from a will produced by a brother and sister with no one to pass on their inheritance. It was their dream this would be a place for boys and girls to learn agricultural skills
- 2,200 ha (5436ac)
- The main enterprises are:
  - Beef cattle – 500 Brahman x Angus and Brangus cows
  - Dairy cattle – 190 Holstein Friesian cows
  - Chicken – 180,000 birds at one time
  - Horses – 100 horses for student courses and stock work
  - Sheep – 250 meat sheep

Stone barn – built in 1830

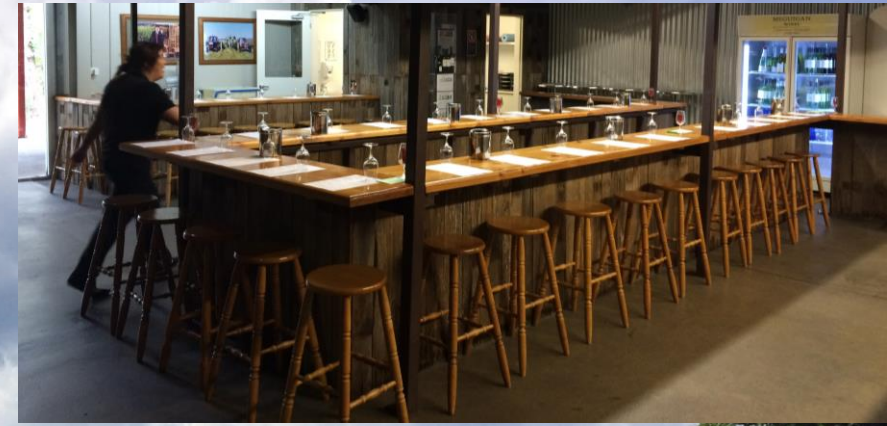


Original Homestead



# DAY 16: HUNTER VALLEY WINE VISITS

- The Hunter Valley is the birthplace of Australian Wine
- Over 150 Wine Producers
- 60 Restaurants
- 180 Accommodations
- The Foothills group visited 5 wineries
- Audrey Wilkinson's was the first winery planted in the area in 1866

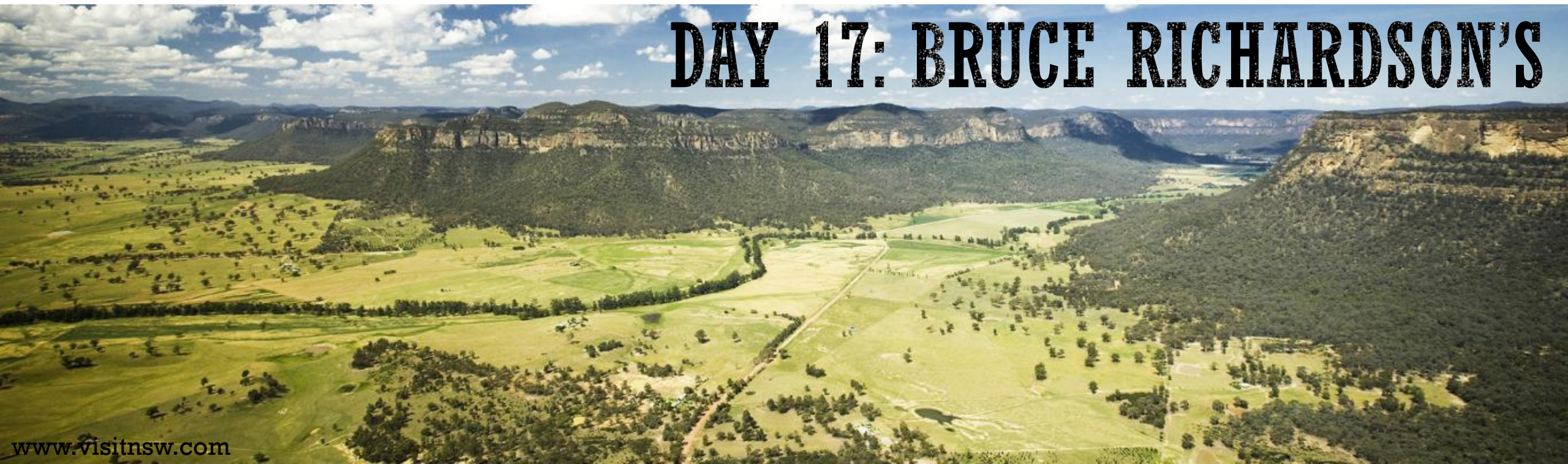






- Bruce and his wife Lyn live in the world's second largest canyon, the Capertree Valley
- They recently sold their cattle since we visited and have gone into breeding race horses, some of which have won many titles
- Lyn is a member of the Australian Stock Horse Society and raises thoroughbreds and Australian Stock Horses.
- She was a jockey in the past and now teaches lessons

## DAY 17: BRUCE RICHARDSON'S





# DAY 18: TOULON PASTORAL

- Holistic managed sheep farm
- Merino wool producer
- Grazing management and pasture rotation
- Part of “green movement”
- His “Rule of Thirds”: Graze 1/3, Trample 1/3, Leave 1/3
- Owns electric truck charged by solar power
  - Uses this truck to pull his Agroplow, no-till seeder which cuts and seeds directly into sod





# DAY 18: GLENWOOD MERINOS

- Early adopter of Australian Sheep Breeding Values (ASBVs)
  - Key economic traits and rapid genetic gain
- 5<sup>th</sup> generation woolgrowers
- Sell breeding studs, and starting in their own wool products
- Sheering done once every 8 months, costs approximately \$100,000 in labour and fees
- Norm Smith has won "Farmer of the Year"
- Rotational grazing, pasture management



Wool Press

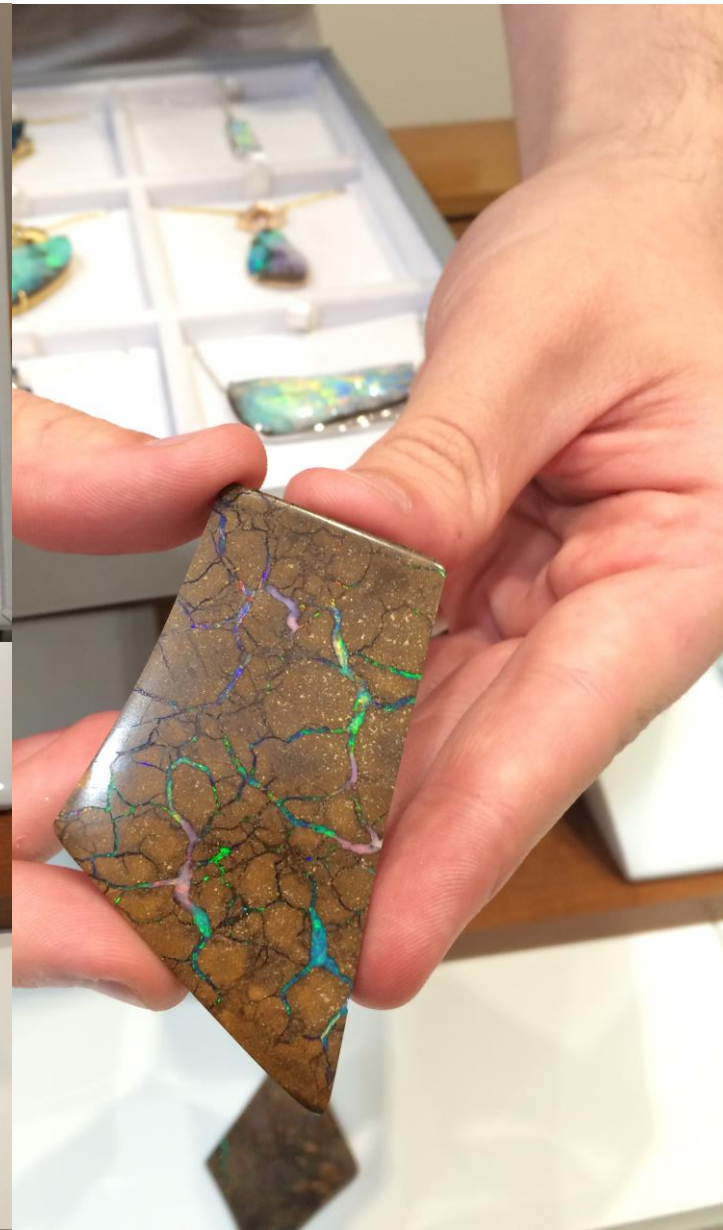
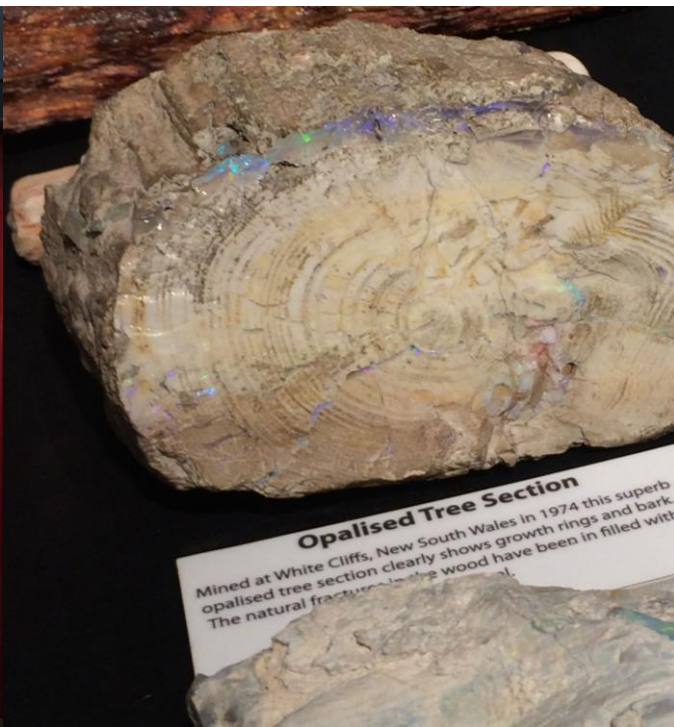


Wool Bale



# DAY 19: SYDNEY OPAL EXPERIENCE

- Opal is a hydrated amorphous form of silica
- It forms within rocks and even fossils
- The type of rock it forms in, determines it's color
- Opal is the national gemstone of Australia
- Home to the world's largest gem opal, the "Olympic Australias"
  - Worth around \$2.5 million
  - Found in 1956
  - Weighs 7.6 lbs





# DAY 20: SYDNEY AND HARBOUR CRUISE

- Sydney architecture is characterized by early 19<sup>th</sup> century colonial Sydney sandstone, Federation style, and later high rises following WWII
- All new buildings must be approved architecture and historic buildings are to be left and built around/renovated on





# DAY 21: HOMEWARD BOUND





# QUESTIONS?

