

The Progress and Perspective of Barramundi Farming in Australia

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Barramundi What is it?

- *Lates calcarifer*
 - Good aquaculture Species
 - Highly sort after by recreational fishers
 - Excellent eating qualities
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- A man in a light blue button-down shirt is smiling and holding a large, silver barramundi fish horizontally in front of him. He is standing in a body of water, with a cloudy sky and distant hills in the background. The fish has a silvery, scaly texture and a prominent dorsal fin.

Where does it grow?

- Northern Australia
- South East Asia – Asian Sea Bass
- West to the Persian Gulf

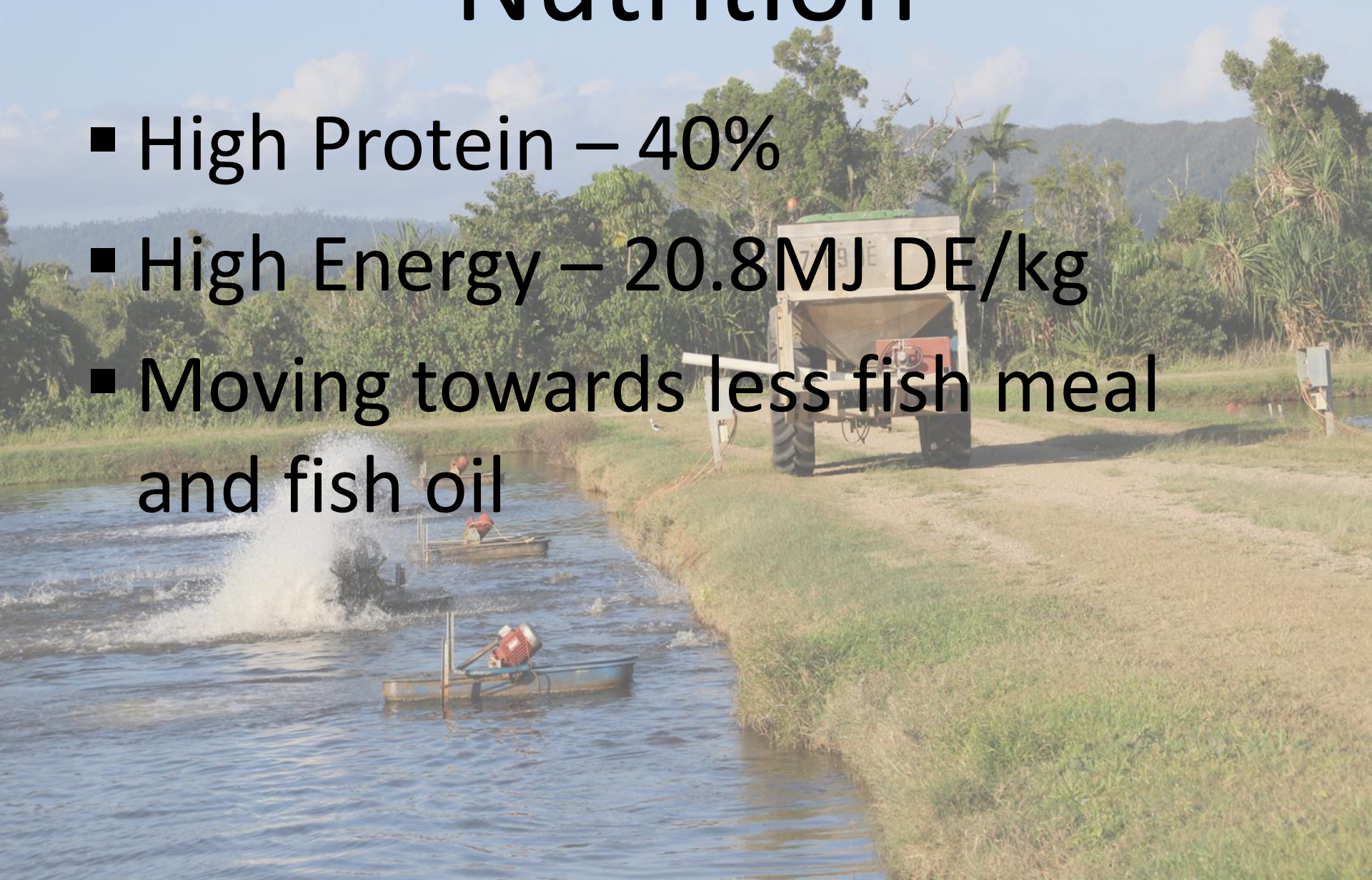


Water Quality

- Quite tolerant
- Water Temperature: above 28°C (82.4°F)
- Salinity: fresh to full salt
- Ph: 6 to 9 (daily swing)
- Oxygen: Best above 4 mg/l
 - Have survived down to 1 mg/l

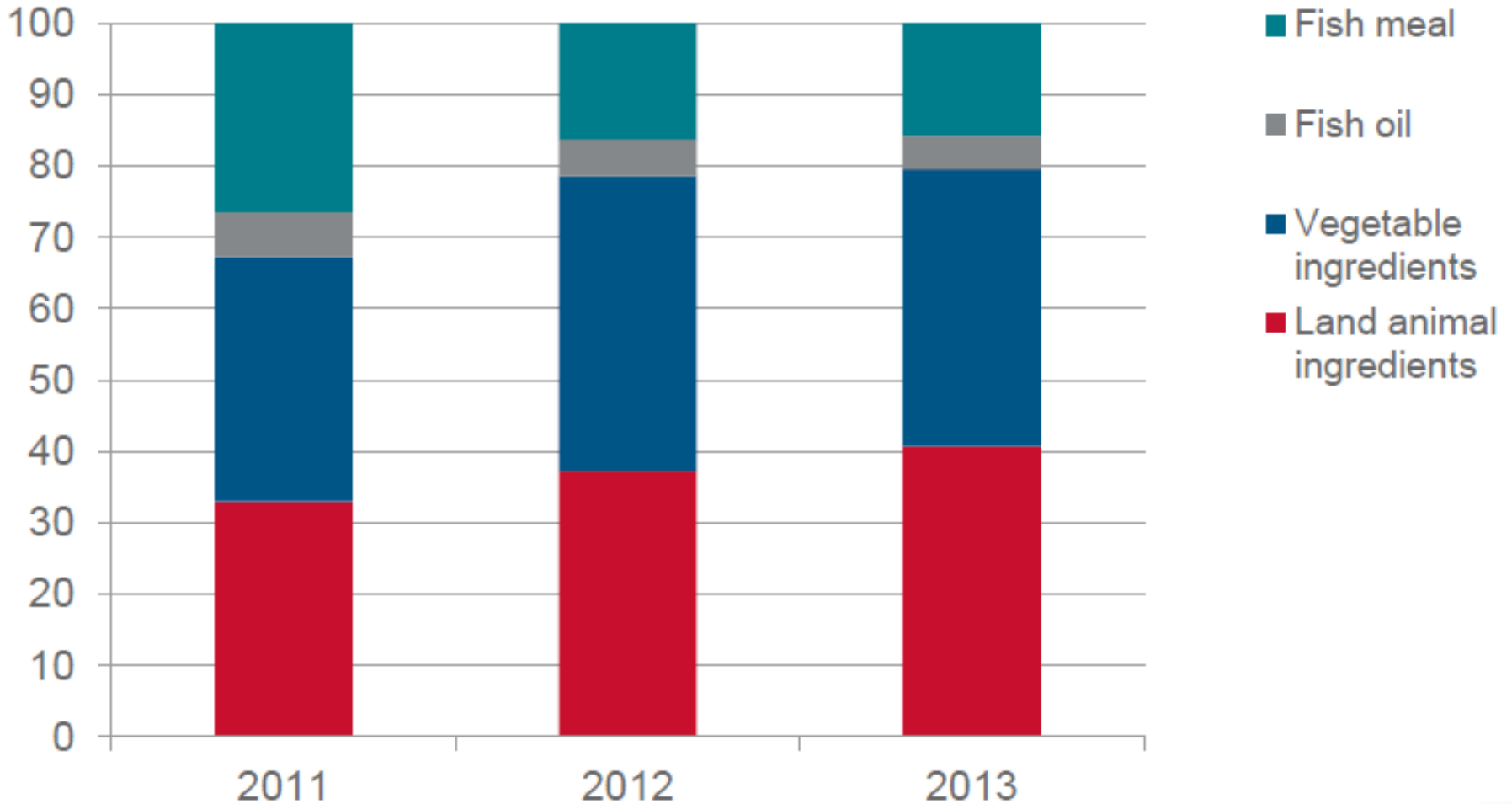
Nutrition

- High Protein – 40%
- High Energy – 20.8MJ DE/kg
- Moving towards less fish meal and fish oil



Ingredient composition in Barramundi feeds

Skretting feeds for Barramundi



Pests and Diseases

- Gill and skin protozoan
- Noda Virus
- Bacterial - vaccination



The Australian Industry

- Grown in All mainland states
- Approx 5000 tonnes
- All sold fresh or live
- Plate and Large Fish



Production Systems



- Pond
- Sea Cage
- Recirculation
- Industry dynamics

My Farm

- All Large Fish 3kg +
- 400 T + per year
- 50 T per Ha over 2 years
- FCR 1.5:1
- 12.6 Ha
- 5 people to do this

Brood Stock



- Prolific breeders
- Change sex, males first, then female
- Can be spawned year round

Larval rearing

- Rotifers
- Artemia
- Weaning, pallet diet



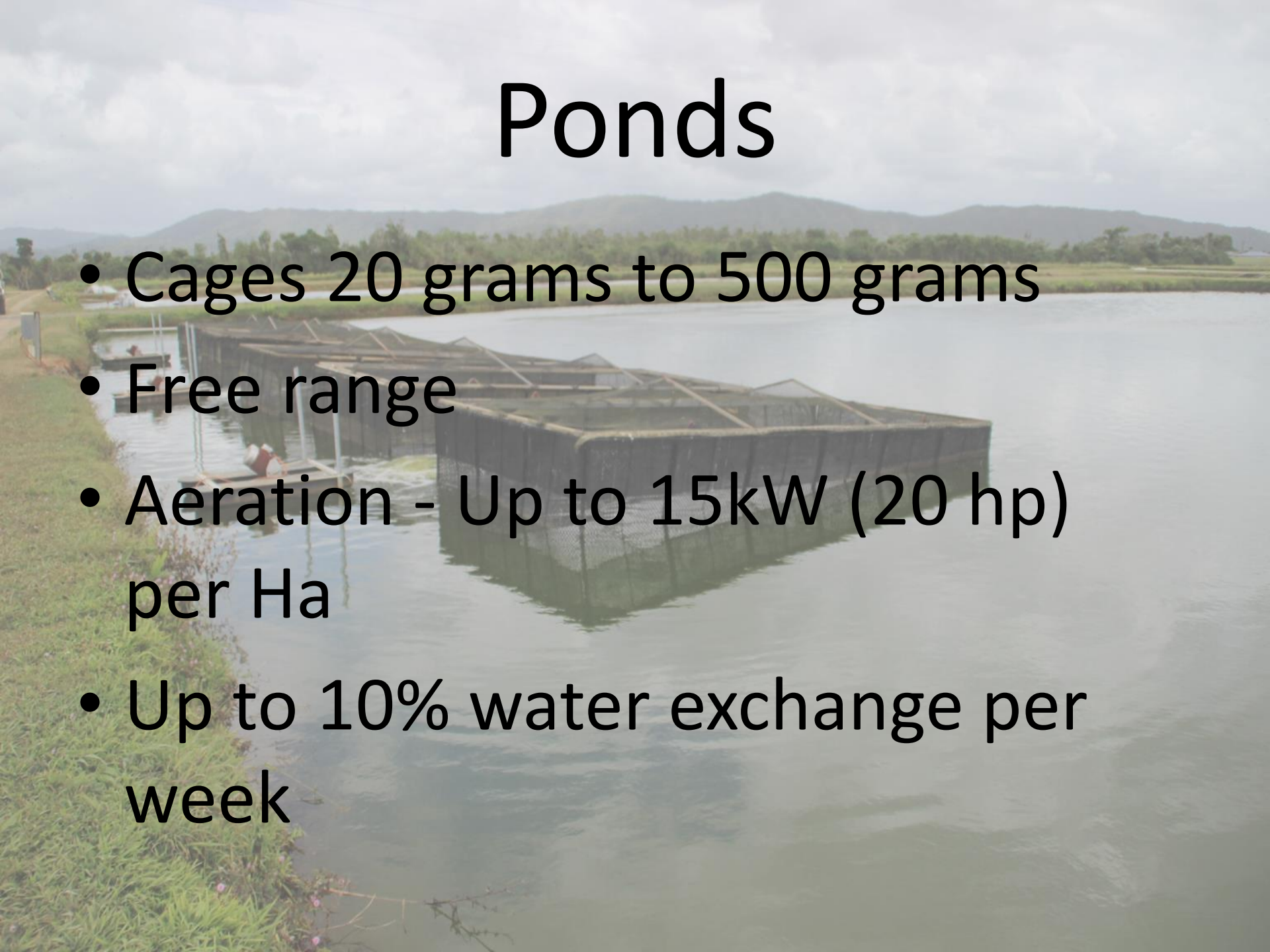
Nursery

- Grading
- Vaccination





Ponds

- Cages 20 grams to 500 grams
 - Free range
 - Aeration - Up to 15kW (20 hp) per Ha
 - Up to 10% water exchange per week
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Harvest

- Fresh on ice
- Sent to Market Weekly



Cost of Production

- Food – R\$4360 per tonne delivered
- Power – R\$5200 per Ha per month
- Labour – R\$7812 per month
- Australian business environment
 - Declining manufacturing

Other Species

- Shrimp - monodon
- Grouper
- Fish thieves





Other Production Systems

- Sea cage
- Recirculation systems
 - Live market, near larger cities



Australian Market



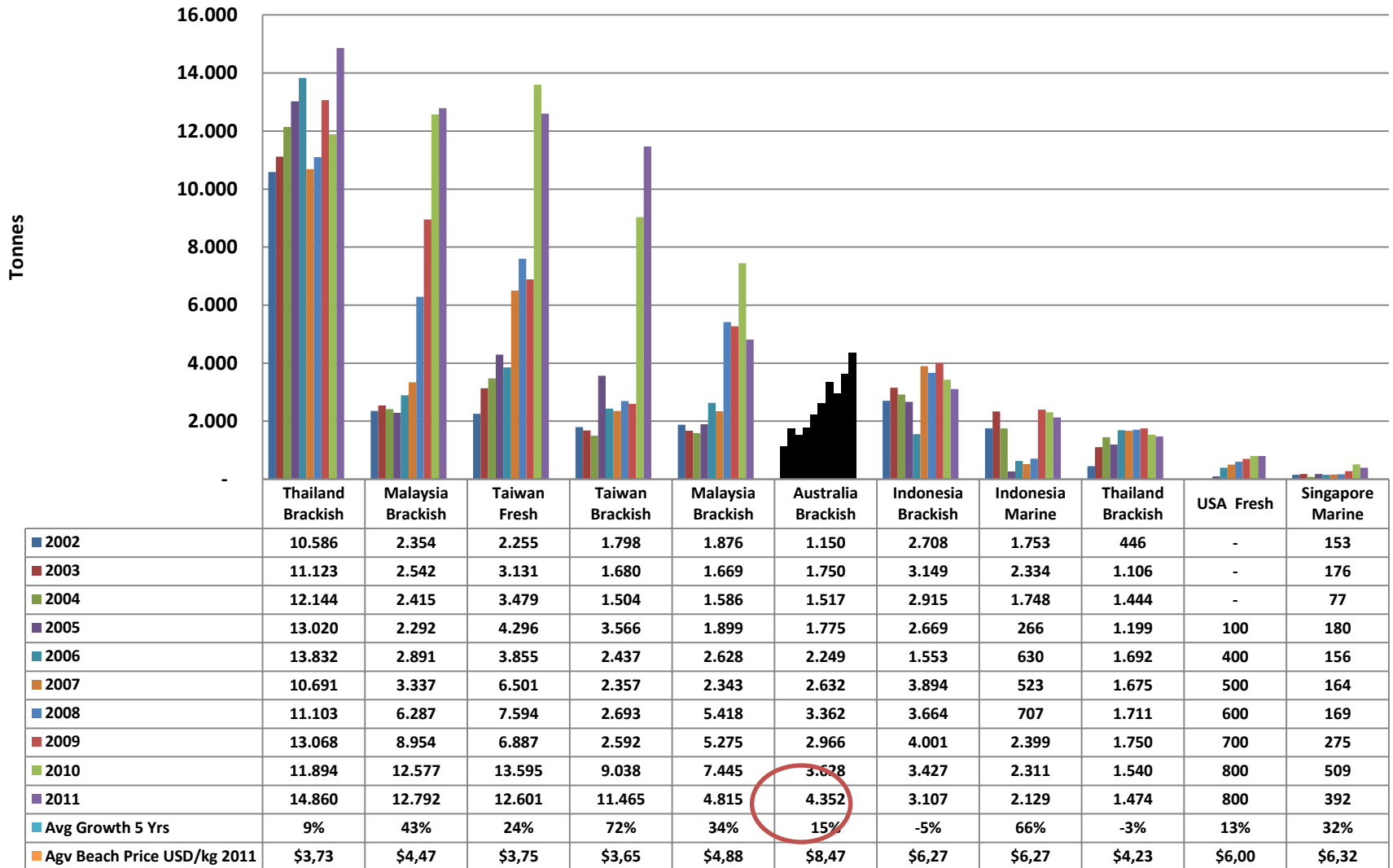
- Wild catch – approx 1500 tonnes
- Farmed – approx 5 000 tonnes
- Imported – at least 10 000 tonnes

Imports

- Barramundi – Asian Sea bass
- Fish names legislation
- Consumer research



Where will imports come from...



Source: FAO 2013

Challenges

- Market
- Costs
- Environmental regulation
- Bio security



Great Barrier Reef

A woman in a blue bikini and snorkel mask is swimming over a diverse coral reef. The water is clear and blue, and the coral is in various colors and shapes, including purple, yellow, and brown. The scene is bright and sunny, with light filtering through the water.

- Reef health in decline
- Agriculture, weather events
- Huge program to improve water quality

Bio Security

- Scale Drop syndrome
- Strep – overseas strains
- Many more for Shrimp
- Human health – antibiotic resistance

Nuffield Scholarship

- The Australian Barramundi Industry – Addressing Cheap Imports
- 6 week group study tour
- 10 week individual study tour
- www.nuffieldinternational.org/rep_pdf/1295000212Marty_Phillips_Report_FINAL_2010_.pdf

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Individual study

- Scottish Salmon Industry
 - Scottish quality Salmon
- Quality
- Marketing

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SUSTAINABLE



BARRAMUNDI

Nuffield International

- Also run in Canada, UK, Ireland, New Zealand, France
- This year positions for 2 farmers from Brazil
- www.nuffieldinternational.org

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Opportunities

A photograph of fresh seafood, including a large salmon and several mussels, resting on a bed of crushed ice inside an orange plastic container. The salmon is the central focus, with its scales glistening. The mussels are scattered around it, some showing their dark shells and others with their gills visible. The background is a solid orange color, likely the interior of the container.

- Increasing population and affluence
- Increased seafood demand
- Labelling
- Australian Salmon industry

Barramundi in Brazil?

- Climate excellent
- Technical expertise
- Pathogens?
- Market? Local
- Market? North America, Europe

ACKNOWLEDGEMENTS

1. FENACAM Organizing Committee
2. ABCC - The Brazilian Shrimp Farmers Association

