



# WA Export Carrots – a case study

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**This presentation:**

- **The industry today**
- **From where?**
- **Industry evolution**
- **Reasons for success?**
- **Carrots v broccoli?**



- Production, grading, packing and exporting of carrots from Western Australia to 16 countries
- 64,000 tonnes exported in 2012/13 out of around 112,000 tonne WA production
- WA carrot exports of \$48 million FOB in 2012/13, up from \$34 million in 2008
- WA ships 94% of Australia's carrot exports
- Amongst world's best quality
- Year-round production
- Certified QA



# Carrots in Western Australia



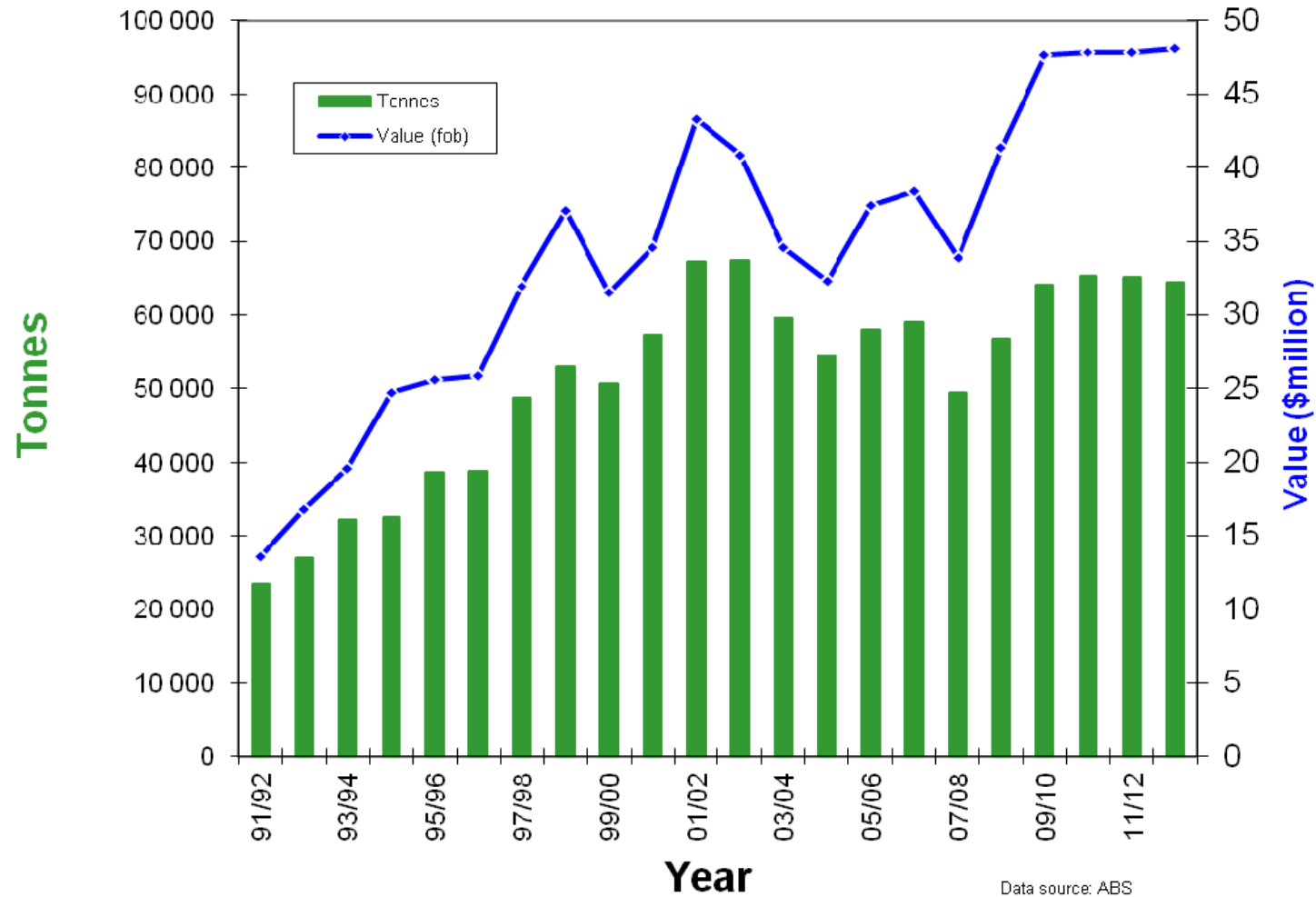
Carrot growing areas  
in Western Australia



Main production areas:  
East Lancelin, West  
Gingin and Myalup



## Western Australian Carrot Exports 1992-2013





# Production system





## From where?



- Export vegetable culture in WA since 1970s with small local market – commitment to export markets, mainly Malaysia and Singapore
- In early 1990's WA produced 40% of Australia's vegetable exports
- Production was small scale mixed vegetable cropping
- Carrot production began expanding with adoption of mechanised harvesting in 1980s
- Obvious increased crop specialisation from the early 1990s
- Scale of carrot cropping rises - grower number falls while production rises



Year	Growers	Production (t)	Exports (t)
1979/80	292	11,400	4,930
1989/90	123	31,000	13,440
1999/2000	50	82,000	50,700
2009/10	30	97,000	64,100

**Scale up – Grower number down 10-fold,  
total production up 10-fold in 30 years since 1980**







## Reasons for success 1



- Commitment to export markets
- Crop knowledge and experience
- Natural resources:
  - climate allows 12-month fresh supply
  - sandy soils for high quality roots
  - well managed groundwater
- Focus on quality, productivity and costs = efficiency
- Scale and vertical integration, production, packing and exporting companies now the model



## Reasons for success 2

- Key focus on reducing labour costs via capital investment
- Continuous improvement, R&D support
- Relationship development, customer needs
- Streamlined supply chains, cool chain integrity
- Shipping technology, pricing, reliability
- Commitment to food safety, traceability and 3<sup>rd</sup> party audited quality assurance
- Differentiation from low cost competitors on the basis of quality, flavour, food safety and reliability





## China is the main competitor



China carrot exports in 2013  
were 591,000 tonnes  
(compare to Aust. 68,800 tonnes)

China average CIF price \$500/t  
Aust. average CIF price \$740/t  
(Source: Global Trade Atlas)



**We don't compete on price!**



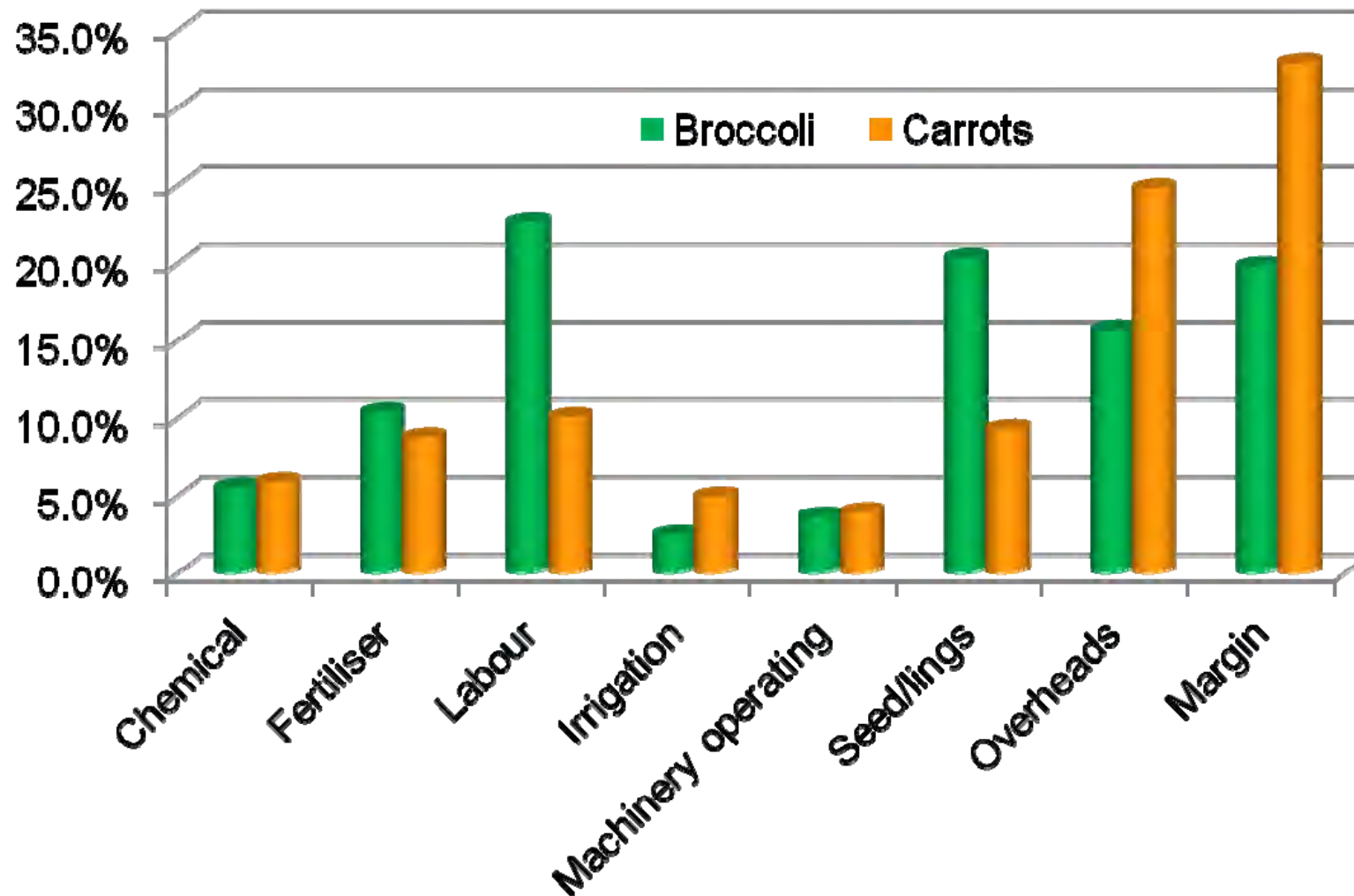
- Investment in R&D, HAL matching for WA funds with Carrot Association for Research and Development (CARD) group 1992 – 2005
- Best varieties, yield, quality, disease tolerance DAFWA and now seed companies
- DAFWA main service provider for R&D, significant industry benefit in past from varietal screening, disease management, irrigation management, nematode control and quality assurance system development
- Reduced level of support as R&D providers funding and capacity is in decline





## Comparison of field costs in WA

- Carrots and broccoli
- Medium size enterprises
- Transplanted broccoli, manual harvest 3 passes with conveyor platform
- Data supplied by Peter Gartrell, DAFWA



## Export broccoli questions



- Can we be competitive?
- Can we differentiate our product?
- Japan, which other markets?
- Seedlings are a major cost. Direct seeding? Other options?
- Harvest labour is a major cost. Varietal architecture, crop agronomy and economics for machine harvesting?



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# Thank you

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