Tasmanian Institute of Agriculture

TIA is a joint venture of the University of Tasmania and the Tasmanian Government

TIA's 21-year history

Established in the mid-1990s as a centre of excellence in agricultural research, development and extension (RD&E).

A dynamic team of scientists, educators and technical experts with access to world-class facilities and equipment.

Conducting high-quality RD&E, education and training to meet the needs of Tasmania's agricultural and food sectors, with global relevance and impact.

- ~175 employees
- ~$70 million research portfolio
- 8 locations (4 farms)
- 90+ RD&E projects
- ~100 research higher degrees students

1996

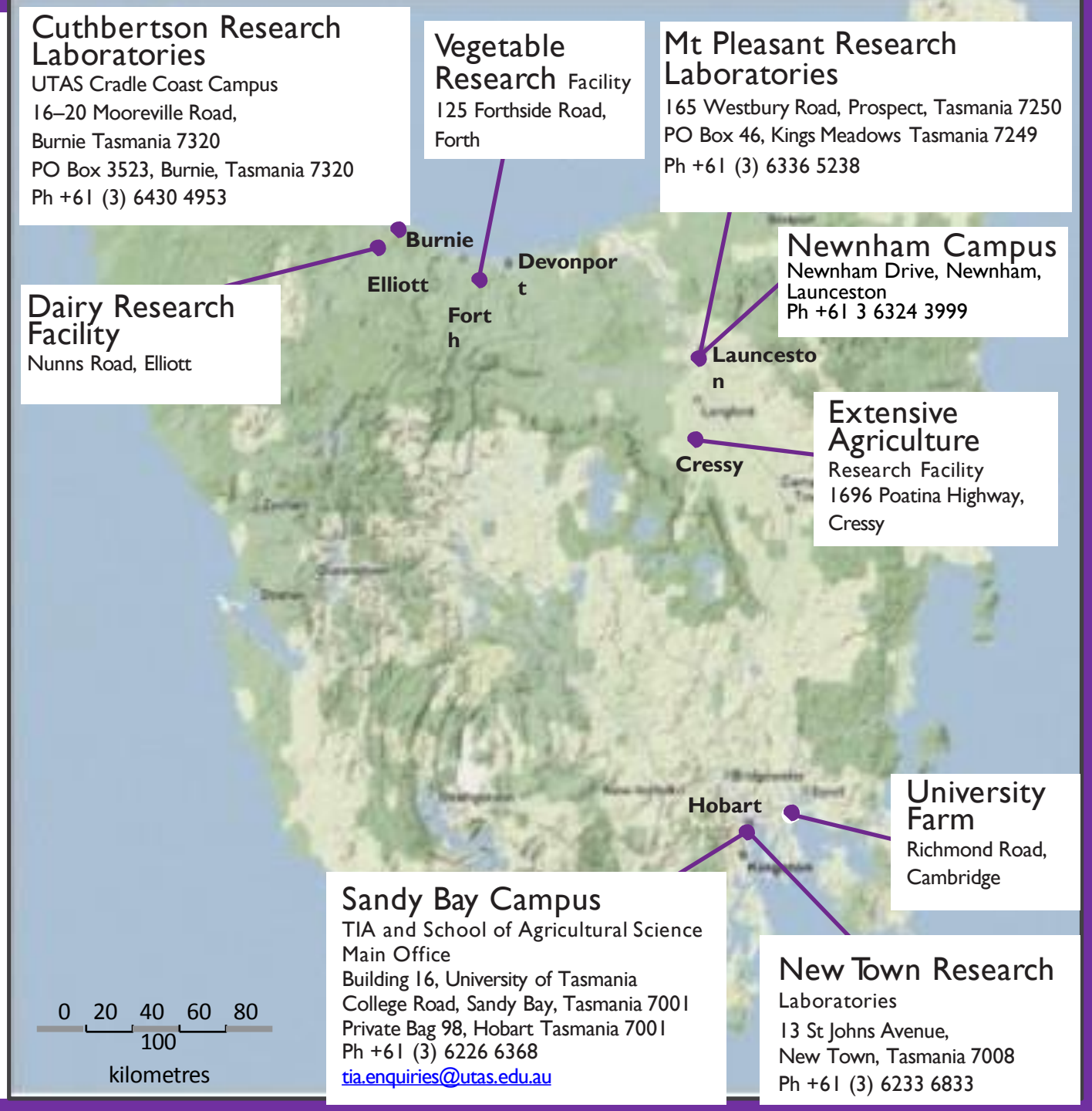
Joint venture formed between the **University of Tasmania** and **Tasmanian Government**

Research Farms and Facilities

- University Farm
- Cressy Research Farm
- Elliott Dairy Research Facility
- Forthside Vegetable Research Facility
- Access to Commercial Properties

Laboratories and Glasshouses

- Microbiology Laboratory
- Molecular Biology Laboratory
- Central Science Laboratory
- Agronomy Laboratory
- Plant Stress Physiology Laboratory
- New Town Laboratories
- Mt Pleasant Laboratories
- Stress Tolerance Screening Facility
- Plant Introductions Nursery
- Sandy Bay and Mt Pleasant Glasshouses
- Burnie Cuthbertson Research Laboratories
- Microbial Biotechnology Research Laboratory



Internationally recognised

The University of Tasmania, through TIA, is recognised among the top 50 universities in the world for agricultural science. We were recently ranked **44th in the world** and **4th in Australia**.

2017 Shanghai Global Ranking of Academic Subjects

Ranked among the world's **top 100** universities for agriculture science in 2016 and 2017.

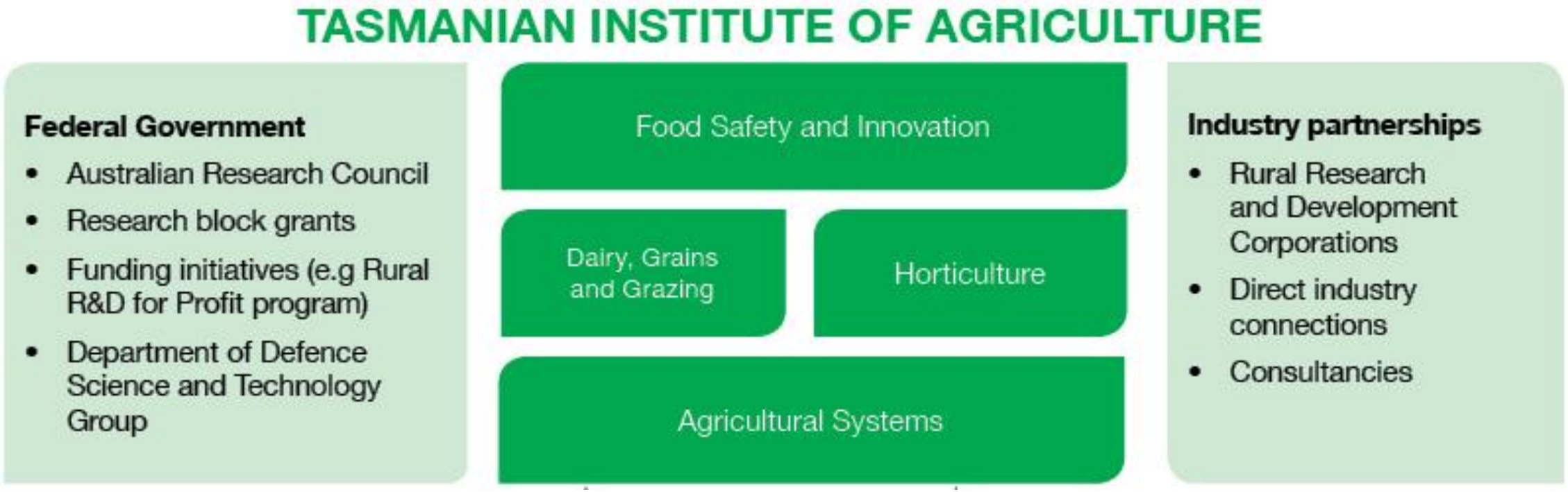
QS World University Rankings by Subject

Perfect score

Only Australian university to be rated a top-score of 5 in areas of 'agriculture, land and farm management' and 'horticultural production'

Excellence in Research for Australia (ERA) 2015

TIA – a partnership between UTAS and the Tasmanian Government



ARC Training Centre for Innovative Horticultural Products

http://www.utas.edu.au/arc-training-centre

the fresh food people
Woolworths

Industrial Transformation Training Centres

- foster close partnerships and research collaboration between university-based researchers, other organisations outside the Australian higher education sector, and research end-users
- foster opportunities for Higher Degree by Research candidates and postdoctoral fellows to pursue industrial training
- drive growth, productivity and competitiveness by linking to key growth sectors
- strengthen the capabilities of industries and other research end-users in identified Industrial Transformation Priority areas.

UNIVERSITY of TASMANIA

Australian Government

Australian Research Council

the fresh food people

Woolworths

MACQUARIE
University

WAGENINGEN
UNIVERSITY & RESEARCH

the Projects

- Banana supply chain improvement
- Understanding the cause of Resin Canal ‘Disease’ in mangoes
- Improving the quality and stability of fresh-cut fruit (x2)
- Extending the shelf-life of fresh-cut leafy salad vegetables
- Extending the seasonal availability of Australian cherries
- Preventing potato greening
- Using packaging innovations to improve produce freshness and shelf-life
- Protected horticulture: when, where and why?
- Organic Standards: ***consumer*** expectations and desires


Woolworths
Australia's fresh food people
Welcome to Sydney RDC

Masterclass in Horticultural Business

Horticulture Innovation Australia

UNIVERSITY of TASMANIA | UNIVERSITY COLLEGE

Lincoln University
Te Whare Wānaka o Aoraki
AOTEAROA • NEW ZEALAND
New Zealand's specialist land-based university

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The Need

Horticulture in Australia:

- ❑ $9B industry
- ❑ Ongoing success & growth is reliant on its people

Alarmingly:

- ❑ Decrease in number of students studying horticultural courses
- ❑ Fewer people take formal training in horticulture compared with the broader agricultural sector

To address this:

- ❑ Modular professional development tailored to horticulture industry
  - ✓ Flexible training options
  - ✓ Suit employed staff who study while managing their business activities

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What is it?

- ❑ Practical course for all of horticulture that is:
  - ✓Tailored to the business of horticulture (mini-MBA)
  - ✓40 weeks (Mid Feb – Early Dec) in duration

- ❑ International standing for industry:
  - ✓Guided by industry leaders
  - ✓Developed and delivered by multiple leading universities
  - ✓Supported by Horticulture Innovation

- ❑ Capped at 30 participants (Initially) – competitive.

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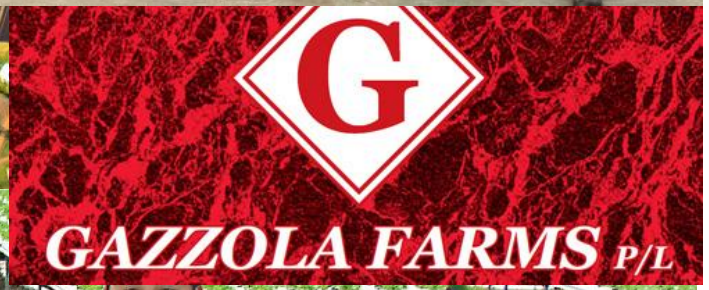
Face-to-Face Intensives



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Fermentation Research – Jo Jones

Currently 2 main research areas:

- Grape and Wine
  - Significant investment from Wine Australia, RD4P, and Agrigrowth Tasmania
  - Strong team of researchers with diverse skills
  - Current research themes include wine quality, climate change, yield management and prediction

- Cider
  - Initially enabled by local cider producers and TIA.
  - Three year project currently supported by Westpac
  - Focus on decision making about apple variety as well as fermentation and analytical methods

Research embedded in Honours and RHD training programs value-adds significantly to the activity in these areas, thus the importance of strong UTAS agricultural teaching program.

Entomology

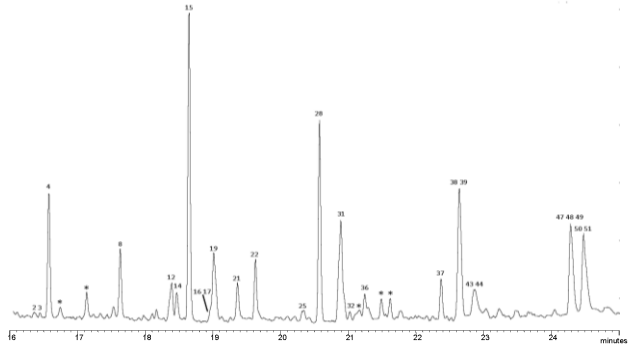
Dr Stephen Quarrell

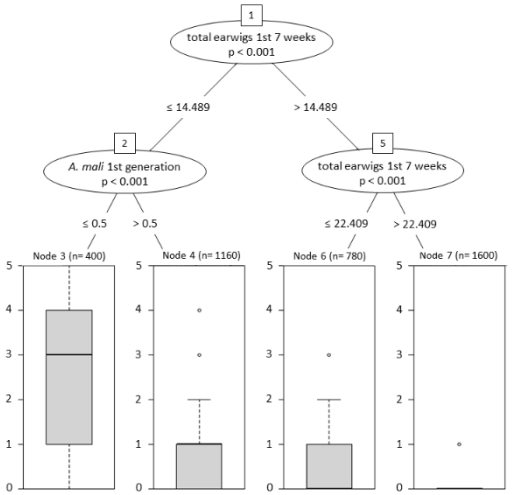
Integrated Pest Management (IPM)

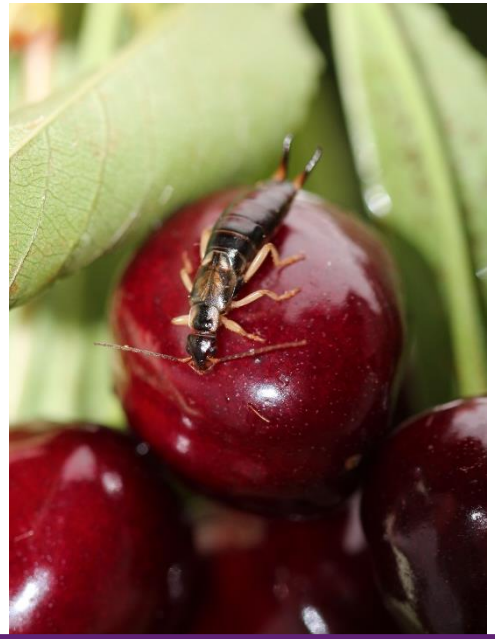
- Pest and beneficial insects
- Chemical ecology

Current projects:

- Redberry mite in blackberry
- IPM extension in apple and pear







Honey bee health and pollination

- Use both traditional techniques and new technologies

Current projects:

- Pollination in covered crops
- Impact of Varroa treatments

National Cherry Development Program

Hort Innovation Project No. CY12023 (Completed 2017)

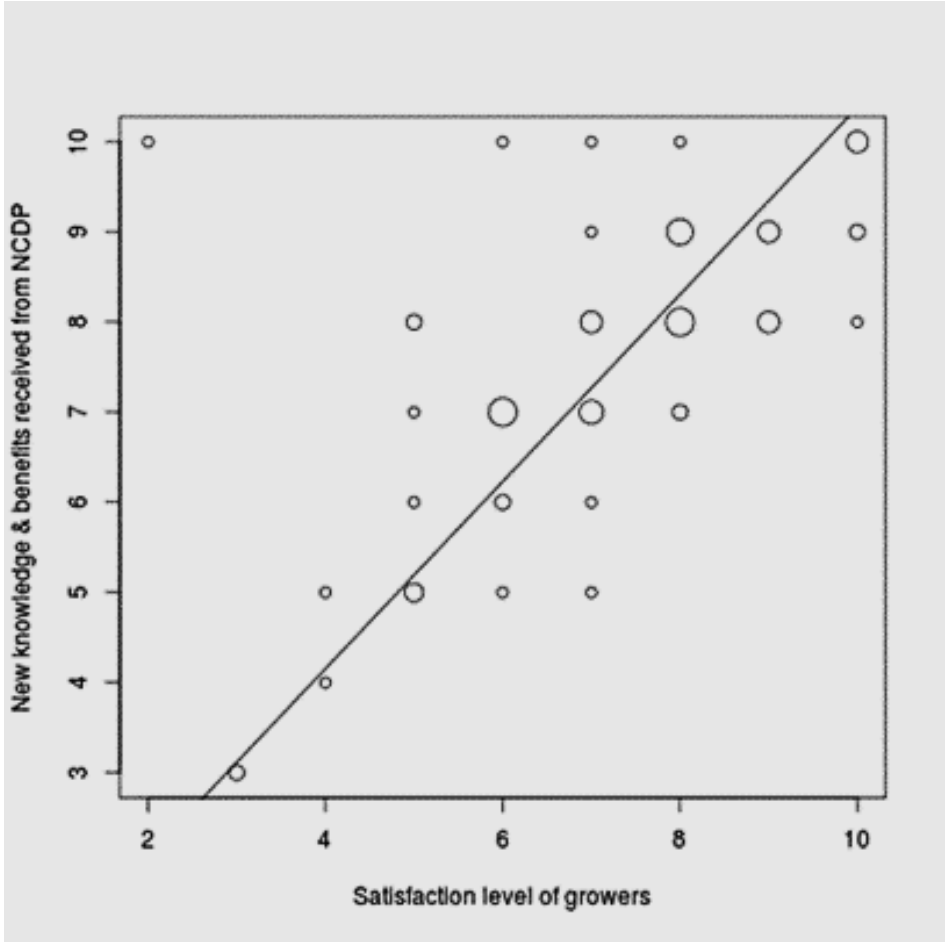
Dr Robert (Bob) Nissen, A/Prof Dugald Close, Consultant Peter Morison & Dr Penny Measham

- Industry development and extension strategy to support the goals of the Australian Cherry Industry.

- Project Impact:

The association between new knowledge and benefits received from the NCDP and grower satisfaction levels.

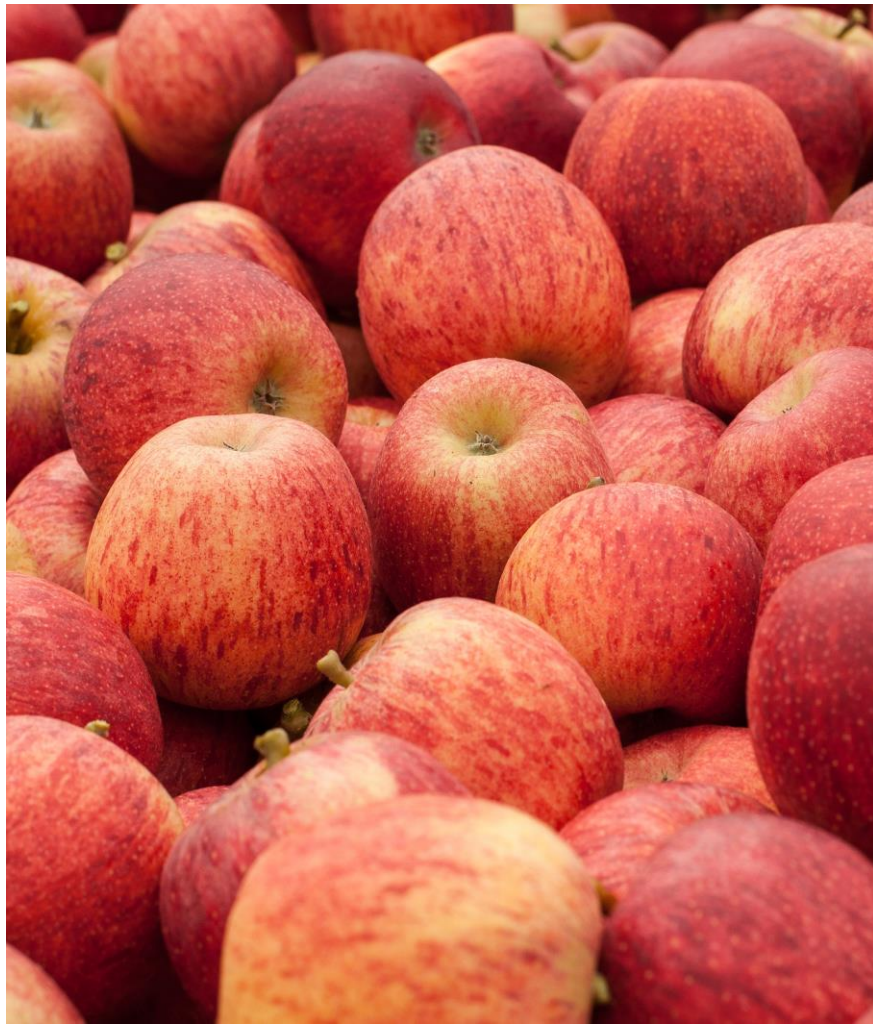
Somer's D=0.6011, P<0.001. Symbol size is in proportion to the number of observations from data.



Australian export and post-harvest guide

Australian Government – Department of Agriculture and Water Resources

Funded (Completion 2018)



Dr Robert (Bob Nissen), Dr Sally Bound, Dr Rajendra Adhikari in collaboration with Fruit Growers Tasmania (FGT) Ian Cover.

- Assist Australian apple producers with reference guides to exporting apples to protocol and non-protocol countries
- Provides a step by step resource framework for growers to follow and information guides on exporting.

Teaching:

Horticulture Science KLA 365 & KLA 610

A/Prof Dugald Close & Dr Robert (Bob) Nissen

- BAgrSci, BAgr and Masters of Applied Science.
- Industry engagement through student visits
- Students are provided with a detailed understanding of:
  - physiological processes underlying horticultural crop production
  - pre- and post-harvest management practices
  - growth regulation & plant responses to environment & management factors

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More Profit from Nitrogen

Optimising nutrient management for improved productivity and fruit quality in cherries

Dr Nigel Swarts, Dr Peter Quin, Nadine Macha and Assoc. Prof. Dugald Close

Tasmanian Institute of Agriculture (TIA)
University of Tasmania

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CHERRY GROWERS AUSTRALIA INC

Australian Government
Department of Agriculture and Water Resources

Horticulture Innovation Australia

Apple tree and fruit nutrition for improved productivity

Dr. Nigel Swarts, Dr. Marcus Hardie, Assoc. Prof. Dugald Close and PhD Student Bi Tan

PFR: Dr. Steve Green, Dr. Brent Clothier, Dr. Roberta Gentile

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Extractives & Value-adding

Horticultural Centre

Essential oils
Component Identification
Aroma
Bioactivity
Extraction technology
Post-harvest chemistry
Clonal selection

Stakeholders

Tasmanian Horticultural Producers

costa

REID FRUITS SINCE 1856

BROWN BROTHERS EST. 1889

WILLIE SMITH'S -EST. 1888- CIDER MAKERS HUON VALLEY, TAS.

WEBSTER

HANSEN Tasmanian ORCHARDS

NEW ZEALAND Blackcurrants

IPM TECHNOLOGIES

WANDIN VALLEY FARMS

Driscoll's ONLY THE FINEST BERRIES

Fruit Growers Tasmania

WINE TASMANIA

apal APPLE & PEAR AUSTRALIA LTD

Future ORCHARDS

CHERRY GROWERS AUSTRALIA INC

raba Raspberries & Blackberries Australia

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