





VISION

Be Australia's leading centre of excellence in all aspects of the Uniquely Australian Food value chain.

MISSION

Work in partnership with Australian First Nations people and other stakeholders to provide research-based training focused on converting traditional knowledge into branded products.

ARC Industrial Transformation Training Centre for Uniquely Australian Foods

The University of Queensland
Health and Food Sciences Precinct
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Director's Report

It gives me great pleasure to write this report for the Australian Research Council Industrial Transformation Training Centre for Uniquely Australian Foods.



The ARC Training Centre for Uniquely Australian Foods is well placed to address the issue of nutrition security by assessing a range of Australian native food crops for their nutritional and health value. These foods will contribute to diet diversity in both the Indigenous and wider communities. In the long term it will lead to develop sustainable food production systems. With the recent challenges the world is facing with the Coronavirus pandemic, the importance of developing local knowledge and enterprises and providing diverse, nutritious diets to build healthy and resilient communities, is evident.

The purpose of the ARC Training Centre is to transform the Native Food and Agribusiness sector by providing research training focussed on converting Traditional Knowledge into Branded Products. Together with our Indigenous Advisory and First Nations Enterprise Groups, industry partners, and international collaborators, the Centre has recruited and will train 10 Higher Degree by Research (HDR) students and 3 Postdoctoral Researchers.

The ARC Training Centre is unique in bringing together Chief Investigators from three different University faculties, representing the Natural Sciences (Food and Chemical Engineering), Humanities and Social Science, and Business, Economics and Law. An anticipated outcome for this Centre is that this interdisciplinary team will enable a holistic approach to address the needs of converting traditional knowledge from Indigenous communities to branded products. The advisory committee for the HDR students is also interdisciplinary, thus ensuring that the students get an opportunity to broaden the scope of their training and research, which will have a higher impact. A 12-month industry placement of the HDR's and the 3 Postdoctoral Researchers is mandatory. I hope that all of the industry partners, Indigenous communities, international collaborators and other stakeholders in the Uniquely Australian Food value chain will support us in providing this placement opportunity.

I would like to thank all of the people involved in making this establishment year such a remarkable success. In particular, we could have not have achieved our goals without the support of the ARC, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), our Chief Investigators, Partner Investigators, Indigenous Partners, HDR students, Postdoctoral Researchers and Administrative staff.

Associate Professor Yasmina Sultanbawa
Centre Director, ARC Training Centre for Uniquely Australian Foods



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1. PROJECT TEAM

Chief Investigators

Assoc Prof Yasmina Sultanbawa	The University of Queensland
Prof Janeen Baxter	The University of Queensland
Dr Allison Fish	The University of Queensland
Prof Mike Gidley	The University of Queensland
Dr Michael Netzel	The University of Queensland
Prof Brad Sherman	The University of Queensland
Dr Heather Smyth	The University of Queensland
Prof Jason Stokes	The University of Queensland

Partner Investigators

Mr Russell Glover	Australian Native Food and Botanicals
Dr Emily Grace	BeelInventive Pty Ltd
Ms Sarah Hickey	Karen Sheldon Catering
Ms Roslyn Newbound	Accuratus Pty Ltd
Mr Scott Powell	Australian Native Products
Ms Ann Shanley	Kindred Spirits Enterprises Limited
Dr Pia Winberg	Venus Shell Systems Pty Ltd

Associate Investigators

Assoc Prof Daniel Cozzolino	The University of Queensland
Prof Louwrens Hoffman	The University of Queensland
Prof Stan Kubow	McGill University, Canada
Prof Michael Rychlik	Technical University of Munich, Germany
Dr Horst Schirra	The University of Queensland
Prof Philippe Schmitt-Kopplin	Hermholtz Centre Munich, Germany
Prof Dharini Sivakumar	Tshwane University of Technology, South Africa
Dr Olivia Wright	The University of Queensland

Postdoctoral Research Fellows

Dr Kamallesh Adhikari	The University of Queensland
Dr Sandra Olarte Mantilla	The University of Queensland
Dr Anh Phan	The University of Queensland

Associate Postdoctoral Research Fellows

Dr Xan Chacko	The University of Queensland
Dr Mridusmita Chaliha	The University of Queensland
Dr Bernadine Flanagan	The University of Queensland
Dr David J Jefferson	The University of Queensland
Dr Gabi Netzel	The University of Queensland
Dr Heather Shewan	The University of Queensland
Dr Barbara Williams	The University of Queensland

HDR Students

Sera Jacob	The University of Queensland
Jaqueline Moura Nadolny	The University of Queensland



Sukirtha Srivarathan
Saskia Urlass

The University of Queensland
The University of Queensland

Associate HDR Students

Oladipupo Adiamo
Saleha Akter
Batlah Almutairi
Eshetu Bobasa
Maral Seidi Damyeh
Selina Fyfe

The University of Queensland
The University of Queensland

Indigenous Enterprise Group

Paul Lane (Chair)
Bruno Dann
Robert Dann

Janine Gertz

David Hewitt

Joseph Murdoch
Madonna Thomson

Kimberley Institute Limited, Broome, WA
Twin Lakes Cultural Park, Kimberley, WA
Bindam Mie & Kimberley Cultural Tours,
Broome, WA
Gugu Badhun Aboriginal Corporation RNTBC,
Townsville, North QLD
Wild Orchard Kakadu Plum Pty Ltd, Delye
Outstation, NT
Birra Yamma UAV's Pty Ltd, Brisbane, QLD
Nyanda Aboriginal Cultural Tours & Bush Food
Experience, Brisbane, QLD



2. OUR PARTNERS

Australian Research Council

Accuratus Pty Ltd

Australian Native Food and Botanicals

Australian Native Products

Beelventive Pty Ltd

Karen Sheldon Catering

Kindred Spirits Enterprises Limited

Venus Shell Systems Pty Ltd

The University of Queensland



3. HIGHLIGHTS/ACHIEVEMENTS

Official Start of ARC Training Centre – 12 May 2019

The Collaborative Research Agreement (CRA) was fully executed on 12 May 2019. The CRA was signed by the UQ Vice-Chancellor and Partner Organisations: Kindred Spirits Enterprises Limited; Venus Shell Systems Pty Ltd; BeelInventive Pty Ltd; Karen Sheldon Group Pty Ltd; and Australian Native Food and Botanicals.

ARC Training Centre Launch – 14 November 2019

A Centre Launch was held on Thursday 14 November 2019 at the QLD Governments' Health and Food Sciences Precinct at Coopers Plains, Queensland. The launch was attended by dignitaries, including: Professor Sue Thomas, Chief Executive Officer, Australian Research Council; Professor Bronwyn Harch, Deputy Vice-Chancellor (Research), The University of Queensland; and The Honourable Dr John McVeigh MP, Member for Groom, Queensland. The event was attended by over 60 people, including: QLD Government representatives; Indigenous Community members; ARC Training Centre project members; industry and other external stakeholders. Media Releases were issued by the Dept of Education, Skills and Employment (The Hon Dan Tehan MP and The Hon Dr John McVeigh MP) and The University of Queensland.

Uniquely Australian Foods Website - <https://uniquelyaustralianfoods.org/>

The ARC Training Centre launched its 'Uniquely Australian Foods' website in September 2019. The website showcases the People, Research, Events and Activities undertaken by the Project Team as well as acknowledging all funders of the Centre.

2019 Annual Workshop – 14-15 November 2019

The 1.5 day workshop was held at the Health and Food Sciences Precinct at Coopers Plains and was attended by: Chief Investigators; Partner Investigators; International Collaborators; HDR students; Postdoctoral Researchers; Indigenous Community; and External Stakeholders. The workshop agenda included: presentations by HDR students, Postdoctoral Researchers, Indigenous Community members and Partner Organisations, as well as, updates by the Centre Director and Deputy Director. The workshop concluded with a Planning Meeting to discuss issues and objectives for 2020.

Project Team Grants/Scholarships Awarded

Notably, two of the Training Centre's Chief Investigators were successful in being awarded ARC Centre of Excellence grants in 2019. Prof Janeen Baxter was successful in her re-bid as the leader of the *ARC Centre of Excellence for Children and Families over the Life Course* and Prof Brad Sherman as being a Chief Investigator on two ARC Centre of Excellence grants: *ARC Centre of Excellence for Plant success in Nature and Agriculture*; and *ARC Centre of Excellence in Synthetic Biology*. Two of the Training Centre's Associate HDR students were awarded scholarships: Adiamo Oladipupo was awarded a *2019 Global Change Scholarship*; and Selina Fyfe was awarded a *2019 Joan Allsop Scholarship*.

UQ Ethics Applications received to work with Indigenous communities

Approval Number 2019002607 – ARC Training Centre.



4. RESEARCH PROGRAMS

1. Native Honey

Project Leader: Dr Heather Smyth

Industry Partner: Dr Emily Grace, BeeInventive Pty Ltd

This project will focus on marketing opportunities and sensory quality for honey derived from native flora. The targets will be to identify which species benefit from proprietary extraction methods, explore new technologies for shelf life and storage to maintain quality, and determine a marketing strategy for products.

2. Native Herbs and Spices

Project Leader: Dr Michael Netzel

Industry Partner: Mr Bruno Dann, Twin Lakes Cultural & Conservation Park

This project will focus on the nutritional quality and functionality of selected Australian native herbs and spices and, in particular, will focus on toxicological risks associated with salt bush (*Atriplex* spp.), samphire (*Tecticornia* spp.) and sea blite (*Suaeda* spp.). The target will be to identify sufficiently promising indicators of consumer value and safety that one or more business road maps can be generated.

3. Native Fruits (Burdekin plum)

Project Leader: Assoc Prof Yasmina Sultanbawa

Industry Partner: Ms Janine Gertz, Gugu Badhun Aboriginal Corporation RNTBC

This project will focus on the chemical composition, nutritional quality and sensory properties of Burdekin Plum. The target will be to assess stability during storage in terms of nutrition and composition so that suitable commercially viable products and market opportunities can be developed.

4. Native Nuts

Project Leader: Prof Jason Stokes

Industry Partner: Dr Odette Best, Wakgun clan of the Gorreng Gorreng, Boonthamurra and Kombumerri of Yugameh Nation

This project will focus on the compositional and nutritional quality of bunya nuts. The target will be to assess stability during storage in terms of nutrition and composition so that suitable commercially viable products and market opportunities can be developed with the overall goal to result in sustainable economic employment for Indigenous communities based on a value proposition developed for Australian native nuts (such as Bunya nuts).

5. Wattle Seeds

Project Leader: Prof Mike Gidley

Industry Partner: Ms Sarah Hickey, Karen Sheldon Group Pty Ltd

This project will focus on developing knowledge and scientific evidence about native Northern Territory sourced wattle seeds in terms of health and nutritional value. The target will be to have a clear guide on which varieties of wattle seed native to the Northern Territory contain important nutritional value and how to roast, grind, process and apply (in food systems) the different seeds to maximise potential health value in terms of human digestion/fermentation and uptake of bioactive and nutritional components.



6. Native Seaweed

Project Leader: Dr Michael Netzel

Industry Partner: Dr Pia Winberg, Venus Shell Systems Pty Ltd

This project will focus on the nutritional composition of seaweed (macroalgae) extracts, ingredients and products as well as the bioaccessibility and bioavailability of key-nutrients and bioactive compounds. The target will be to define compositional, nutritional and sensory properties of algal extracts, ingredients and food products, to overcome barriers to product formulation and food regulation, and identify new market opportunities and applications.

7. Nagoya Protocol

Project Leader: Prof Brad Sherman

Industry Partners: Ms Ann Shanley, Kindred Spirits Enterprises Limited

This project will focus on the regulation of the native Australian Food and Agribusiness sector. The target will be to generate insight into the emerging domestic and export markets for native Australian plant products and to identify legally and socially appropriate business models for this industry.

8. Using marks and designations to build and sustain local food and agriculture

Project Leader: Dr Allison Fish

Industry Partners: Mr Russell Glover, Australian Native Food and Botanicals, and Ms Ann Shanley, Kindred Spirits Enterprises Limited

This project will focus on the identification of a sustainable business model for development of the Kakadu plum sector and subsequent market value identification of prototype products. The target will be to work with partner organisations and community members to design pathways for trademark protection that can translate to the industry as a robust business solution.

9. Market Insights for Australian Native Foods

Project Leader: Dr Heather Smyth

Industry Partners: Ms Roslyn Newbound, Accuratus Pty Ltd, and Scott Powell, Australian Native Products

This project will focus on understanding market value for Uniquely Australian Foods. The target will be to utilise novel native food products as case studies for consumer and market research that will help to inform future branding efforts and business models in the Uniquely Australian Food space, both locally and internationally.

10. Strengthening Indigenous community capability for sustainable livelihoods through the native botanicals industry

Project Leader: Prof Janeen Baxter

Industry Partner: Ms Ann Shanley, Kindred Spirits Enterprises Limited

This project will focus on the transformation of the Native food industry through value addition and development of branded products. The target will be to explore how Indigenous communities achieve their self-identified aspirations for enterprise and livelihoods on their country, and how they are able to access the opportunities presented by the native botanicals industry.



11. A bioeconomic model for valuing the unique biodiversity of wild harvested Australian native food products for commercial markets

Project Leader: Assoc Prof Daniel Cozzolino

Industry Partner: Several Indigenous Communities, Far North QLD

This project will focus on developing a new model for evaluating the opportunities that wild harvested products present for some Indigenous communities in far North QLD focussing on generating value for the community. This model will not only focus on economic value, but will also integrate cultural values, aspects of health, education, employment and other social benefits.

12. Use of Australian native plants as a natural alternative to chemical preservatives

Project Leader: Prof Louwrens Hoffman

Industry partner: Mr Scott Powell, Australian Native Products

This project is linked to the ARC Training Centre. There is a growing market for Australian native plant foods within Australia and globally. However, there is limited information on nutritional and functional value for application in food, particularly meat industries. A range of Australian native plants will be assessed including lemon myrtle and anise myrtle to evaluate their preservative properties in meat matrices to diversify markets and increase value and demand.



5. PUBLICATIONS

5.1 Books

1. **Adhikari, Kamalesh** and **Jefferson, David James** (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (New York: Routledge, 2019).

5.2 Book Chapters

1. **Adhikari, Kamalesh**, 'What Does It Mean to Protect Farmers' Varieties as Intellectual Property?' in Adhikari, Kamalesh and Jefferson, David James (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (New York: Routledge 2019), 177-205.
2. **Adhikari, Kamalesh** and **Jefferson, David James**, 'Intellectual Property Law for Plant Varieties: Challenges and Developments in Asia' in Adhikari, Kamalesh and Jefferson, David James (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (New York: Routledge 2019), 1-11.
3. Rana, Mohammad A and **Adhikari, Kamalesh**, 'Policy, Politics, and Implications of Pakistan's Plant Breeders' Rights Act' in Adhikari, Kamalesh and Jefferson, David James (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (New York: Routledge 2019), 104-123.
4. Perera, Asanka and **Adhikari, Kamalesh**, 'From Neglect to Protection: Recognising the Importance of Farmers' Varieties in Sri Lanka' in Adhikari, Kamalesh and Jefferson, David James (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (New York: Routledge 2019), 161-176.
5. **Jefferson, David James**, 'Plant Breeders' Rights Proliferate in Asia: The Spread of the UPOV Convention Model' in Adhikari, Kamalesh and Jefferson, David James (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (Routledge 2019).
6. Lertdhamtewe, P and **Jefferson, D J**, 'A Fresh Look at the Protection of "Domestic" and "Wild" Plant Varieties in Thailand' in Adhikari, Kamalesh and Jefferson, David James (eds.) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (Routledge 2019).
7. **Fyfe, Selina, Chaliha, Mridusmita, Netzel, Michael E.** and **Sultanbawa, Yasmina** 'Ethnic Foodomics: Metabolomics Studies of Ethnic Foods', Book chapter for Elsevier book: *Comprehensive Foodomics* (submitted 25/06/2019).
8. **Wright, Olivia, Phan, Anh, Hong, Hung, Netzel, Gabriele, Sultanbawa, Yasmina** and **Netzel, Michael E.** 'Bioactive Anthocyanins in Selected Fruits – A Foodomics Approach' Book chapter for Elsevier book: *Comprehensive Foodomics* (submitted 03/10/2019).
9. **Sherman, B**, 'Climbing Rose' in Claudy Op den Kamp and Dan Hunter (eds), *A History of Intellectual Property in 50 Objects* (Cambridge University Press, 2019), 184-191.

5.3 Journal Articles

1. **Adiamo, Oladipupo Q, Netzel, Michael E, Hoffman, Louwrens C** and **Sultanbawa, Yasmina** (2019) Acacia seed proteins: Low or high quality? A comprehensive review. *Comprehensive Reviews in Food Science and Food Safety*. doi:10.1111/1541-4337.12508.
2. Shelat, Kinnari J., **Adiamo, Oladipupo Q, Olarte Mantilla, Sandra M, Smyth, Heather E, Tinggi, Ujang, Hickey, Sarah**, Rühmann, Broder, Sieber, Volker and **Sultanbawa, Yasmina** (2019) Overall nutritional and sensory profile of different species of Australian wattle



- seeds (*Acacia* spp.): Potential food sources in the arid and semi-arid regions. *Foods*, 8 10: 482. doi:10.3390/foods8100482.
3. **Akter, Saleha**, Addepalli, Rama, **Netzel, Michael E**, Tinggi, Ujang, Fletcher, Mary T., **Sultanbawa, Yasmina** and Osborne, Simone A. (2019) Antioxidant-rich extracts of *Terminalia ferdinandiana* interfere with estimation of cell viability. *Antioxidants*, 8 6: doi:10.3390/antiox8060191.
 4. **Akter, Saleha, Netzel, Michael E.**, Tinggi, Ujang, Osborne, Simone A., Fletcher, Mary T. and **Sultanbawa, Yasmina** (2019) Antioxidant rich extracts of *Terminalia ferdinandiana* inhibit the growth of foodborne bacteria. *Foods*, 8 8: 281. doi:10.3390/foods8080281.
 5. **Chacko, Xan**, (2019). Digging up colonial roots: The less-known origins of the Millennium Seed Bank Partnership. *Catalyst: Feminism, Theory, Technoscience* 5 (2) 1-9.
 6. **Chacko, Xan** (2019). Creative Practices of Care: The Subjectivity, Agency, and Affective Labor of Preparing Seeds for Long-term Banking. *Culture, Agriculture, Food and Environment*. doi.org/10.1111/cuag.12237.
 7. **Chaliha, Mridusmita** and **Sultanbawa, Yasmina**, *Terminalia ferdinandiana*, A traditional medicinal plant of Australia alleviates hydrogen peroxide induced oxidative stress and inflammation, in vitro. *Journal of Complementary and Integrative Medicine*.
 8. **Jefferson, David James** and **Adhikari, Kamalesh** 'Reimagining the Relationship between Food Sovereignty and Intellectual Property for Plants: Lessons from Ecuador and Nepal' (2019) *The Journal of World Intellectual Property*, 1-23. doi:10.1111/jwip.12134.
 9. **Phan, Anh Dao Thi, Netzel, Gabriele**, Chhim, Panhchapor, **Netzel, Michael E.** and **Sultanbawa, Yasmina** (2019) Phytochemical characteristics and antimicrobial activity of Australian grown garlic (*Allium Sativum* L.) cultivars. *Foods*, 8 9: 358. doi:10.3390/foods8090358
 10. **Phan, Anh Dao Thi, Chaliha, Mridusmita, Sultanbawa, Yasmina** and **Netzel, Michael E** (2019) Nutritional characteristics and antimicrobial activity of Australian grown Feijoa (*Acca sellowiana*). *Foods*, 8 9. doi:10.3390/foods8090376.
 11. Lekala, Chembi Solomon, Madani, Khalil Saber H., **Phan, Anh Dao Thi**, Maboko, Martin Makgose, Fotouo, Helen, Soundy, Puffy, **Sultanbawa, Yasmina** and **Sivakumar, Dharini** (2019) Cultivar-specific responses in red sweet peppers grown under shade nets and controlled-temperature plastic tunnel environment on antioxidant constituents at harvest. *Food Chemistry*, 275, 85-94. Doi 10.1016/j.foodchem.2018.09.097.
 12. **Sultanbawa, Yasmina** and **Netzel, Michael** (2019) Introduction to the special issue: foods of plant origin. *Foods*, 8, 1-3. doi:10.3390/foods8110555.
 13. Striegel, Lisa, Weber, Nadine, Dumler, Caroline, Chebib, Soraya, **Netzel, Michael E.**, **Sultanbawa, Yasmina** and **Rychlik, Michael** (2019) Promising tropical fruits high in folates. *Foods*, 8 9: doi:10.3390/foods8090363.
 14. Ndou; P.P. Tinyani; R.M. Slabbert; **Y. Sultanbawa**; **D. Sivakumar**, An integrated approach for harvesting Natal plum (*Carissa macrocarpa*) for quality and functional compounds related to maturity stages, *Food Chemistry*.
 15. Gorman, T. Julian, Wurm, A.S. Penelope, Vemuri, Sivaram, Brady, Chris and **Sultanbawa, Yasmina** (2019) Kakadu plum (*Terminalia ferdinandiana*) as a sustainable Indigenous agribusiness. *Economic Botany*, 1-18.

5.4 Industry Reports and Publications

1. **Chaliha, Mridusmita, Phan, Anh Dao Thi, Sultanbawa, Yasmina** and **T.H.E. Kakadu plum Propriety Ltd** (2019). Determination of Ascorbic Acid.



2. **Industry Report: Innovation Connections – Product Art Ltd.**
Phan, Anh Dao Thi, Sultanbawa, Yasmina and Netzel, Michael E (2019). Scoping study on Feijoa - bioactive compounds and in vitro bioactivity.
3. **Industry Report: Innovation Connections – Gumby Gumby Australia.**
Phan, Anh Dao Thi, Netzel, Michael E and Sultanbawa, Yasmina (2019). Scoping Study on potential functional compounds in native Australian tree *Pittosporum Angustifolium* (Gumby Gumby).
4. **Sultanbawa, Yasmina, Mridusmita, Chaliha and Australian Native Food and Botanicals (ANFAB)** (2019), Information for European Union approval of Kakadu plum as a Traditional Food. Information provided on the production of KP powder, nutritional and biochemical composition, product specification sheets, safety and toxicity.
5. **Sultanbawa, Yasmina, Mridusmita, Chaliha, Marion and Bruno Dann, Twin Lakes Cultural Park,** Chemical residue and elemental analysis of Jilungin (*Terminalia canescens*) used as a herbal infusion. (This report has enabled the sale of 2 tonnes of the dried powder as a herbal infusion).
6. **Industry Report: Innovation Connections – Rainforest Bounty**
Chaliha, Mridusmita, Netzel, Michael, Sultanbawa, Yasmina (2019). Scoping study on Boonjie tamarind and Cape York lilly pilli – nutritional and bioactive properties.

5.5 Conference Publications

1. **Akter, Saleha, Addepalli, Rama, Netzel, Michael E., Tinggi, Ujang, Fletcher, Mary T., Sultanbawa, Yasmina and Osborne, Simone A.** (2019) 'In vitro bioaccessibility and transport of ascorbic and ellagic acid in *Terminalia ferdinandiana* (Kakadu plum) extracts'. In: Abstracts. Active Integrated Matter (AIM) Conference 2019, Melbourne, VIC, Australia. 14-16 May 2019.
2. **Chaliha, Mridusmita, Phan, Anh Dao Thi, Hung Trieu Hong, Geraldine McGuire, Netzel, Michael E. and Sultanbawa, Yasmina** (2019) 'Exploring the nutritional and functional properties of two understudied Australian endemic plants: *Diploglottis bracteata* and *Syzygium aqueum*'. In: International Tropical Agriculture Conference (TropAg), Brisbane, QLD, Australia, 11-13 November 2019.
3. **Netzel, Michael, Michael Rychlik, Olivia Wright, Yasmina Sultanbawa** (2019) 'Nutritional value of Australian traditional foods and diet diversification from a global perspective'. In: International Tropical Agriculture Conference (TropAg), Brisbane, QLD, Australia, 11-13 November 2019.
4. **Phan, Anh Dao Thi, Chaliha, Mridusmita, Hong, Hung, Netzel, Michael and Sultanbawa, Yasmina** (2019) 'Bioactive compounds and functional properties of *Pittosporum angustifolium* (Gumby Gumby), an Australian native plant'. In: 4th Queensland Annual Chemistry Symposium QACS 2019, Brisbane, QLD, Australia, 29 November 2019.
5. **Phan, Anh Dao Thi, Chaliha, Mridusmita, Sultanbawa, Yasmina and Netzel, Michael E.** (2019) 'Nutritional characteristics and antimicrobial activity of Australian grown Feijoa (*Acca sellowiana*)'. In: International Tropical Agriculture Conference (TropAg), Brisbane, QLD, Australia, 11-13 November 2019.
6. **Rychlik, Michael, Chaliha, Mridusmita, Netzel, Michael E. and Sultanbawa, Yasmina** (2019) 'Rediscovering the value of Indigenous plant foods for diet diversification as one perspective for Australia's Bioeconomy'. In: Bioenergy STRONG Research Summit, Brisbane, QLD, Australia, 12-15 November 2019.



7. **Srivarathan, Sukirtha, Phan, Anh Dao Thi, Hong, Hung, Wright, Olivia, Sultanbawa, Yasmina and Netzel, Michael E.** (2019) 'Nutritional profile and phytochemical characteristics of Australian grown Samphire (*Tecticornia* sp.)'. In: 4th Queensland Annual Chemistry Symposium QACS 2019, Brisbane, QLD, Australia, 29 November 2019.
8. **Srivarathan, Sukirtha, Netzel, Michael E, Phan, Anh Dao Thi, Sultanbawa, Yasmina** (2019) 'Exploring the nutritional profile and bioactive potential of Australian grown Saltbush (*Atriplex* sp.)'. In: International Tropical Agriculture Conference (TropAg), Brisbane, QLD, Australia, 11-13 November 2019.



6. ACTIVITIES

6.1 Invited Talks/Keynote Addresses

1. **Adhikari, Kamalesh**, 'Model for Benefit Sharing under the Nagoya Protocol and the Plant Treaty'. In: The Roundtable Meeting on Benefit Sharing Arrangements, Intellectual Property and Related Legal Requirements. Enabling a Traditional Australian Medicinal Plants Agribusiness Project, CDU Waterfront Campus, Menzies, Darwin, 14 August 2019.
2. **Adiamo, Oladipupo**, 'Impact of innovative non-thermal technologies on anti-nutrient levels and functional properties of wattle seeds' Poster Presentation. In: International Tropical Agriculture Conference (TropAg), Brisbane, QLD, Australia, 11-13 November 2019.
3. **Bobasu, Eshetu**, 'Kakadu Plum (*Terminalia ferdinandiana*) – a native Australian fruit with functional properties' Poster Presentation. In: International Tropical Agriculture Conference (TropAg), Brisbane, QLD, Australia, 11-13 November 2019.
4. **Chacko, Xan**, 'The vault is a bunker, the arsenal are seeds: Plants, Precarity, and the Cunning of Militarised Logic', *Everyday Militarisms Collaboratory*, University of Sydney, 22-27 April 2019.
5. **Chacko, Xan**, 'Uncovering the Logic of Regeneration in Complex Living Systems', *Marine Biological Lab-Arizona State University History of Biology Seminar*, Woods Hole, Massachusetts, 15-22 May 2019.
6. **Chacko, Xan**, 'Data Imaginaries: Frictions and Flattenings in the Data Lives of Seeds', *Data Then and Now Series*, eScience Institute, University of Washington, 6 June 2019.
7. **Chacko, Xan**, 'Banking on the End: Speculative Unravellings of the Frayed Futures of Frozen Life', *Association for the Study of Literature and Environment*, Davis, California, 26-30 June 2019.
8. **Chacko, Xan**, 'Standardising Life, Depicting Decay: Ellen Isham Schutt's Watercolours of Rotting Apples, 1911-15', *International Society for the History and Theory of Intellectual Property*, University of Technology Sydney, 3-6 July 2019.
9. **Chacko, Xan**, 'Killing with Kindness: Adapting to Crisis in Seed Banking Protocols', *History of Science Society Annual Meeting*, Utrecht, 23-27 July 2019.
10. **Chacko, Xan**, 'Resisting the Lure of the Elemental: Is the Seed Bank the Antithesis of a Multi-Species Future?', *Society for the Social Studies of Science Annual Meeting*, New Orleans, Louisiana, 3-7 September 2019.
11. **Chacko, Xan** (2019). Propagating the Future: Seeds, Debris, and 'Diversity'. *Cultural Studies Association of Australasia Annual Conference*, Brisbane, 4-6 December 2019.
12. **Chailha, Mridusmita**, 'Can we create a sustainable functional food market using Australian native plant foods?'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
13. **Chailha, Mridusmita**, 'Exploring the nutritional and functional properties of two understudied Australian endemic plants: *Diploglottis bracteata* and *Syzigium aqueum*' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
14. **Fyfe, Selina**, 'Roadmap for researchers studying northern Australian endemic plant foods' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
15. **Hoffman, Louwrens**, Chair of 'Provenance of meat'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.



16. **Hoffman, Louwrens**, 'Provenance in sheep: The Karoo lamb story'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
17. **Jefferson, D J**, 'Experimenting with the Governance of Plants as Intellectual Property: Limitations, Possibilities, and the Ecuadorian Experience', *2019 Intellectual Property Academics Conference*, University of Tasmania, Hobart, 12 February 2019.
18. **Netzel, Gabriele**, 'Understanding the metabolic fate and bioactivity of dietary anthocyanins' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
19. **Netzel, Michael**, 'Australian-grown produce – Naturally Nutritious and Healthy?' Invited Guest lecture (2 hrs) in the module "Recent Topics in Nutrition and Health", TUM Master programme "Nutrition and Biomedicine", Technical University Munich (TUM), Freising, Germany, 9 January 2019.
20. **Netzel, Michael**, 'Roadmap to assess the nutritional value of plant based (native) foods'. In: *Exploring the nutritional value and potential benefits of native foods*, Joint Seminar between the ARC Training Centre for Uniquely Australian Foods & the Nutrition Society of Australia QLD, Coopers Plains, 16 August 2019.
21. **Netzel, Michael**, 'Australian native fruits and "not so native fruits" as novel sources for functional bioactives'. In: *3rd Global Bioeconomy Alliance Symposium*, Sao Paulo and Ubatuba, Sao Paulo, Brazil, 30 September – 4 October 2019.
22. **Netzel, Michael**, 'The inside and out of folate in strawberries and avocados'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
23. **Netzel, Michael**, 'Folate in strawberry and avocado – profile, distribution and total content'. In: *4th Queensland Annual Chemistry Symposium (QACS)*, Brisbane, 29 November 2019.
24. **Rychlik, Michael**, 'Folate in durian and other tropical exotics'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
25. **Rychlik, Michael**, 'Nutritive and Health-promoting Foods from Centers of Australian and Global Biodiversity'. In: *Bioenergy STRONG Research Summit*, Brisbane, 12-15 November 2019.
26. **Sivakumar, Dharini**, 'Influence of traditional South African food preparation methods on functional compounds'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
27. **Smyth, Heather**, 'Australian cuisine and traditional food flavours'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
28. **Smyth, Heather**, 'Provenance: The Australian flavour story for meat'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
29. **Suvakumar, Dharini**, 'Impact of pre-processing blanching treatment on metabolites and glycoalkaloids in African nightshade (*solanum retroflexum* dun)' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
30. **Netzel, Gabriele**, 'Structurally different anthocyanidin-glycosides and their metabolic fate in vivo'. In: *4th Queensland Annual Chemistry Symposium (QACS)*, Brisbane, 29 November 2019.
31. **Olarte Mantilla, Sandra**, 'Purple sweetcorn – an innovative horticultural product – consumer views' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
32. **Phan, Anh**, 'Nutritional characteristics of Australian grown Feijoa (*Acca sellowiana*) and its antimicrobial activity' Poster presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.



33. **Phan, Anh**, 'Bioactive compounds and functional properties of *Pittosporum angustifolium* (Gumby Gumby), an Australian native plant'. In: *4th Queensland Annual Chemistry Symposium (QACS)*, Brisbane, 29 November 2019.
34. **Sawant, Prashant**, 'Lemon Myrtle (*Backhousia Citriodora*): Unique Australian native superfood & cosmeceutical active' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
35. **Srivarathan, Sukirtha**, 'Exploring the nutritional profile and bioactive potential of Australian grown Saltbush (*Atriplex* sp.)' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
36. **Srivarathan, Sukirtha**, 'Nutritional profile and phytochemical characteristics of Australian grown Samphire'. In: *4th Queensland Annual Chemistry Symposium (QACS)*, Brisbane, 29 November 2019.
37. **Sultanbawa, Yasmina**, 'The 27th Vice-Chancellor's Prestigious Research and Innovation seminar', Tshuwane University of Technology, South Africa, 29 July 2019.
38. **Sultanbawa, Yasmina**, 'Antimicrobial activity and ellagitannins from *Terminalia ferdinandiana*' Poster Presentation. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
39. **Sultanbawa, Yasmina**, Chair of 'Creating an Australian Cuisines through Traditional Australian Foods' Panel. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
40. **Sultanbawa, Yasmina**, 'Australian native plant foods and their contribution to diet diversity'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
41. **Murdoch, Joseph and Talbott, Ricky**, 'Integration of Aboriginal culture and history through bush food enterprises'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.
42. **Wright, Olivia**, 'Designing meal plans for the food service sector using traditional Australian foods'. In: *International Tropical Agriculture Conference (TropAg)*, Brisbane, 11-13 November 2019.

6.2 National and International Workshops Held/Organised

1. **21 February 2019:** 'Publish or Perish: Secrets on how to get published' organised by Prof Louwrens Hoffman. This workshop was delivered to Postdoctoral Researchers and HDR students of the ARC Training Centre and other research higher degree students from UQ at the Health and Food Sciences Precinct site at Coopers Plains. The aim of this workshop was to inform participants on the importance of publishing and tools that would be useful in writing a very good manuscript.
2. **7 May 2019:** 'Uniquely Australian Foods-A science-based workshop' organised by Heather Smyth, Yasmina Sultanbawa and Michael Netzel. This workshop was delivered to the participants of the Indigenous Staff Development Program at The University of Queensland. The workshop provided an introduction to the science used to explore native botanicals together with practical exercises and hands-on experience in sensory science, food chemistry and food safety. The workshop also involved tastings of native foods as well as sharing of ideas, culture and experiences.
3. **30 May 2019:** 'Project Development Workshop' organised by Heather Smyth, Yasmina Sultanbawa and Michael Netzel. The focus of this workshop was to train Postdoctoral



Researchers and Chief Investigators on the tools that UQ and QAAFI uses to support project development from developing ideas with clients, budgeting, seeking approvals, contracting and delivery.

4. **12 and 15 August 2019:** 'Global Trends in Food Analysis – from targeted to non-targeted Foodomics including Applications of Stable Isotopes and Ultrahigh Resolution Mass Spectrometry'. Invited speaker: Professor Michael Rychlik, Technical University of Munich (TUM), Chair of Analytical Food Chemistry (Head), TUM, Freising Campus, Germany. Workshop for UQ Food Science, Nutrition & Bioscience Students and PhD's (relevant for ARC TC UAF PhD's), St Lucia Campus, UQ.
5. **16 August 2019:** 'Ethnofoods as hidden treasures for regional and global nutrition – bioprospecting native foods for vitamins'. Invited speaker: Professor Michael Rychlik, Chair of Analytical Food Chemistry (Head), Technical University of Munich TUM: In: 'Exploring the nutritional value and potential benefits of native foods', Joint Seminar/Workshop between the ARC Training Centre for Uniquely Australian Foods & the Nutrition Society of Australia QLD, Coopers Plains.
6. **16 August 2019:** 'Exploring the nutritional value and potential benefits of native foods', Joint Seminar/Workshop between the ARC Training Centre for Uniquely Australian Foods & the Nutrition Society of Australia QLD, Coopers Plains, QLD, Australia. Participants: senior academics, post-docs, PhD's, food science and nutrition students, nutritionists, dietitians, consultants (nutrition and food industry). The joint Seminar/Workshop was organised by Yasmina Sultanbawa and Michael Netzel.
7. **14-15 November 2019:** 'ARC Training Centre Annual Workshop' organised by Yasmina Sultanbawa, Heather Smyth and Carol Ballard. This workshop was the second Annual Workshop to be held for all Training Centre members: Chief Investigators, Partner Investigators, Postdoctoral Researchers and HDR students; Indigenous Community Members; and external stakeholders.

6.3 National and International Visitors and Visiting Fellows

1. **23 January 2019:** Daryl D Souza, Sunpork Solutions, Brisbane QLD. Met with Yasmina Sultanbawa and Heather Smyth to provide an inspection of the facilities at the Health and Food Sciences Precinct, Coopers Plains and to discuss sensory trials and shelf life extension of products and improvement to feed.
2. **6 February 2019:** Dr Robyn Marsh, Dr Greg Leach, Dr Jo Wapling and Ms Taylah Church, Menzies School of Health Research, Charles Darwin University, David Leach, Integria Healthcare, Prof James de Voss, A/Prof Jo Blanchfield, Matheus Carpinelli de Jesus, Chuang Ming Desmond Sim, UQ Chemistry, Jocelyn Bose and Dr Kamallesh Adhikari, UQ Law, and Ann Shanley, Lizzie Webb and Rhonda Renwick, Kindred Spirits Enterprises Limited. Met with **Yasmina Sultanbawa, Heather Smyth** and **Michael Netzel** to introduce the ARC Training centre and identify pathways to encourage Indigenous students to pursue HDRs in Nutrition and Food Sciences. The meeting included presentations and sensory tasting of native foods and beverages.
3. **3 April 2019:** Associate Professor Ram Vemuri, Charles Darwin University. Met with **Heather Smyth, Michael Netzel, Mridusmita Chaliha** and **Kamallesh Adhikari** to discuss value chains and Australian native plants.



4. **4 April 2019:** Joseph Murdoch, Birra Yamma UAVs and Madonna Thomson, Jagera Daran Pty Ltd. Met with **Yasmina Sultanbawa, Heather Smyth, Allison Fish, Kamalesh Adhikari, Janeen Baxter and Mridusmita Chaliha**, Stephen Williams (Deputy Director, QAAFI) and Bob Landon (QAAFI Research Partnerships Manager) to discuss developing a framework and guidelines in working with Indigenous communities and IP of Traditional Knowledge.
5. **11 April 2019:** Lizzie Webb, Kindred Spirits Enterprises Limited. Met with **Yasmina Sultanbawa, Heather Smyth, Janeen Baxter, Allison Fish** and **Kamalesh Adhikari** to discuss social factors and Indigenous participation in the Training Centre and provided a brief on value addition to Australian native food products, and IP and benefit sharing.
6. **15 April 2019:** A/Professor Robyn Littlewood Director Health Services Research, Centre for Children's Health Research, Children's Health Queensland Hospital and Health Service. Met with **Heather Smyth, Sandra Olarte, Michael Netzel, Gabi Netzel** and **Yasmina Sultanbawa** to discuss the research done on Australian native plant foods and health benefits. A/Professor Littlewood is keen to translate research for Indigenous community health and wellbeing. A sensory tasting was done with wattle seed buns and butters with native plant flavours.
7. **7 May 2019:** Prof Odette Best, School of Nursing & Midwifery, Faculty of Health, Engineering and Sciences, University of Southern Queensland. Met with **Yasmina Sultanbawa, Michael Netzel** and **Heather Smyth** to discuss the use of Australian native plant foods in healthy diets. Prof Best is interested in working with the Training Centre in promoting the use of these plants for health and well-being.
8. **29 May 2019:** Scott Herman and Miriam Pearce, Deception Bay State High School. Met with **Yasmina Sultanbawa** and Joseph Murdoch, Birra Yamma UAVs to discuss Australian native plants and how schools can be trained in understanding the nutritional and health value of these plants through the ARC Training Centre with the objective being to attract interested students, especially indigenous students to follow a career pathway in nutrition and food science.
9. **9-29 June 2019:** Professor Dr Pilar Taboada-Sotomayor, Instituto de QuÃmica, UNESP-Univ Estadual Paulista, Brazil. A visiting scientist at the Health and Food Sciences laboratory at Coopers Plains, working with A/Prof Yasmina Sultanbawa, Dr Michael Netzel, Dr Anh Phan and Phd students, Maral Seidi and Shammy Sarwar on developing magnetic molecularly imprinted polymers (MIP) selective to plant bioactive compounds.
10. **12 July 2019:** Trade Commission of Peru, Australia: Mario Vargas, Trade Commissioner and Rafael Rallende, Business Development. Met with **Yasmina Sultanbawa, Heather Smyth, Sandra Olarte Mantilla** and **Mridusmita Chaliha** to explore ways to collaborate with the Training Centre to look at Indigenous plant material from Peru.
11. **17 July 2019:** Roslyn Newbound and Peter Ryan, Lam Brothers Pty Ltd. Met with **Yasmina Sultanbawa** and Bob Landon, Research Partnerships Manager, QAAFI, UQ to discuss value added products from native plant foods and their involvement as an industry partner in the ARC Training Centre.
12. **23-24 July 2019:** Dr Kamal Melvani, Charles Darwin University. Met with Joseph Murdoch (Birra Yamma UAVs), Madonna Thomson (Jagera Daran Pty Ltd), Dr Ahamed Fazal (Horticulture Consultant), Jack Lynch (Birra Yamma UAVs), Mununjali Mens Group



at Beaudesert and **Yasmina Sultanbawa** to discuss regenerative agriculture using Indigenous plants.

13. **25 July 2019:** Dr Prashant Sawant, Head R & D, Australian Native Products. Met with **Yasmina Sultanbawa** and **Louwrens Hoffman** to discuss the R & D projects that can be included in the ARC Training Centre.
14. **9 August 2019:** David De Paoli, Founder and Managing Director of AustChilli Group, Bundaberg QLD. Met with **Yasmina Sultanbawa** to discuss the nutritional and health properties of Australian native foods and value addition.
15. **12-17 August 2019:** Professor Michael Rychlik (International Collaborator), Technical University of Munich (TUM), Chair of Analytical Food Chemistry (Head), TUM, Freising Campus, Germany.
16. **14-15 November 2019:** Mr David De Paoli, Austchilli Group, Mr James Krahe, Fial and Mr Stephen Potts, Dept of Environment and Science (QLD) were invited to the ARC Training Centre's Annual Workshop and Planning meeting held at the Health and Food Sciences Precinct, Coopers Plains to provide external reviews and insights into the native food industry.
17. **14-15 November 2019:** Professor Michael Rychlik (International Collaborator), Technical University of Munich (TUM), Chair of Analytical Food Chemistry (Head), TUM, Freising Campus, Germany.
18. **14-15 November 2019:** Professor Philippe Schmitt-Kopplin (International Collaborator), Director of the independent research unit 'Analytical Biogeochemistry', Helmholtz Zentrum Munchen, Munich, Germany.

6.4 Government, Industry and Business Community Briefings

1. **8 February 2019:** **Yasmina Sultanbawa** met with Dr Paul Hardisty, CEO of the Australian Institute of Marine Sciences (AIMS) at St Lucia Campus. A workshop was held to present areas of expertise – 'Resilient Communities and Livelihoods' was an area for potential collaboration with AIMS and the ARC Training Centre to share knowledge and experiences in working with Indigenous Communities.
2. **22 March 2019:** **Yasmina Sultanbawa** and **Mike Gidley** met with Associate Professor Robyn Littlewood, Director, Health Services Research, Queensland Children's Hospital, Children's Health Queensland Hospital and Health Service, Co-Chair, Queensland Child and Youth Clinical Network, Clinical Excellence Queensland and Member, Queensland Networks Executive Committee, Department of Health. Provided a briefing on research programs and possible collaboration in the area of Nutrition in Indigenous Communities.
3. **18 April 2019:** **Heather Smyth, Sandra Olarte** and **Mridusmita Chaliha** met with Yongjoo Na, R & D Manager, AMOREPACIFIC ASEAN RHQ, Singapore, and Michael Kocken, Trade and Investment Queensland who are interested in: new sources of active natural ingredients from Australian native products; new product formulations for cosmeceuticals, skin care, beauty, cosmetics; and new solutions, including novel technical approaches (eg for sunscreen it could be a better formulation improving the



efficacy, safety, sustainability etc.). Briefing also include presentations and tasting of Australian native food products.

4. **14 August 2019: Kamalesh Adhikari** met with Integria Health Care (Australia) and the Menzies School of Health Research to assist in developing a permit application that they intended to submit to the Northern Territory Government and also provided a briefing about access and benefit sharing agreements with Indigenous communities in the Tiwi Islands and other Indigenous areas.
5. **18 September 2019: Mridusmita Chaliha** presented two posters on research findings at the Research Showcase at the Aboriginal and Torres Strait Islander Research Forum held at Customs House, Brisbane.

6.5 Visits to Overseas Laboratories and Facilities

1. **10 January 2019: Michael Netzel** visited Professor Michael Rychlik, Technical University of Munich (TUM), Chair of Analytical Food Chemistry (Head): visit of new laboratories and demonstration of new analytical equipment; discussion about the most efficient strategy to harmonise analytical methods for bioactive compounds in plant food between both research teams. TUM, Freising Campus, Germany.
2. **27 July 2019: Yasmina Sultanbawa** visited Tshuwane University of Technology (TUT), Pretoria, South Africa to meet with collaborators of TUT and the University of Pretoria to discuss a recently awarded Australia-Africa Universities Network (AAUN) grant which allows for student exchange. Two PhD students, one from TUT and one from University of Pretoria, will visit the Health and Food Sciences laboratories at Coopers Plains in March - May 2020 and one Postdoctoral Researcher from the Training Centre will visit the TUT labs in February 2020.
3. **30 July 2019: Yasmina Sultanbawa** visited the laboratories of Prof Dharini Sivakumar in the Faculty of Science, Tshwane University of Technology, Pretoria, South Africa. Attended and evaluated Postgraduate presentations and a food product development competition on 30 July 2019 at a seminar titled 'Health benefit and commercialization of South African Indigenous Vegetables and Fruits'. Discussed the possibility of a visit by a Training Centre Postdoctoral Researcher to mentor and train some of the TUT students on food analytical methods.
4. **31 July 2019: Yasmina Sultanbawa** visited Professor Namrita Lall's laboratories in the Medicinal Plant Science Section at the University of Pretoria, Pretoria, South Africa. Discussed the recently awarded Australia-Africa Universities Network (AAUN) grant to develop timelines and student exchange.
5. **1 August 2019: Yasmina Sultanbawa** visited the Tshiombo Tribal Council in Venda which is one of the rural, disadvantaged Limpopo communities in Limpopo province in the northern part of South Africa. The visit was to see the operation of a solar dryer which has been set up to dehydrate African leafy green vegetables like night shade, Chinese cabbage etc. Prof Sivakumar is developing a social enterprise model similar to the one that we have for Kakadu plum and working with Indigenous communities. This enterprise reduces food losses and also creates employment and economic benefits for this community.



6.6 Visits to Indigenous Communities

1. **7 May 2019: Yasmina Sultanbawa, Kamalesh Adhikari**, Joseph Murdoch (Birra Yamma UAVs), Dr Kamal Melvani (CDU) and Dr Ahmed Fazal (Horticulture Consultant) visited Mununjali Men's Group in Beaudesert, QLD, to assess the potential of regenerative agriculture using native plants.
2. **13-15 May 2019: Yasmina Sultanbawa** visited David Hewitt, Traditional Owner, Wild Orchard Kakadu Plum Pty Ltd, Humpty Doo, NT, to collect samples of Kakadu plum and to train rangers on the harvesting protocols for Kakadu plum. A presentation was made by Yasmina Sultanbawa at a community meeting regarding the research done on Australian bush foods and the potential to develop social enterprises within communities (15 community members in attendance).
3. **18 June 2019: Yasmina Sultanbawa and Kamalesh Adhikari (UQ), Ann Shanley (PI)**, Lizzie Webb, and Rhonda Renwick (Kindred Spirits Enterprises Limited) visited Karajarri Prescribed Body Corporate, Nyangumarta Karajarri Aboriginal Corporation RNTBC in Broome to discuss the harvesting of Kakadu plum and source any community members or rangers who would be interested in harvesting. A visit was made to the site where the harvesting can be done in the next season.
4. **19 June 2019: Yasmina Sultanbawa, Kamalesh Adhikari, Ann Shanley (PI)**, Lizzie Webb, and Rhonda Renwick (Kindred Spirits Enterprises Limited) visited Yawuru Prescribed Body Corporate (Nyamba Buru Yawuru) in Broome to discuss the harvesting of Kakadu plum and if there are community members or rangers who would be interested in harvesting.
5. **21 June 2019: Yasmina Sultanbawa and Kamalesh Adhikari (UQ), Ann Shanley (PI)**, Lizzie Webb, and Rhonda Renwick (Kindred Spirits Enterprises Limited) visited Traditional owner Bruno Dann and family at Twin Lakes Cultural Park in Dampier Peninsular, Broome to gain an understanding of the Kakadu plum value chain and other native bush plants, such as, Samphire and Seablite, as well as to assess the needs of the community and find solutions during the period of the project.
6. **21 June 2019: Yasmina Sultanbawa and Kamalesh Adhikari (UQ), Ann Shanley (PI)**, Lizzie Webb, and Rhonda Renwick (Kindred Spirits Enterprises Limited) and Paul Lane (Kimberley Institute) visited Andrew Bowles at Goojarr Goonyool Aboriginal Corporation, Pender Bay to inspect the drone program for communities to individually record and manage their trees, etc. so they can talk with their customers about supply.
7. **24 July 2019: Yasmina Sultanbawa and Kamalesh Adhikari (UQ)**, Joseph Murdoch (Birra Yamma UAVs), Dr Kamal Melvani (CDU) and Dr Ahmed Fazal (Horticulture Consultant) visited Madonna Thomson (Jagera Daran Pty Ltd) and her community members on her land in Ipswich to assess the potential of regenerative agriculture using native plants.
8. **18-24 November 2019: Yasmina Sultanbawa, Selina Fyfe** (Associate HDR student), Prof **Philippe Schmitt-Kopplin** (International Collaborator) and Prof Dharini Sivakumar (Associate International Collaborator) visited Indigenous communities in Nhulunbuy, NT, to meet with community members to discuss harvesting and undertake the picking of green plums.



6.7 Additional Activities

1. **31 July 2019: Yasmina Sultanbawa and Michael Netzel:** FOODS (MDPI) - Special Issue 'Foods of Plant Origin'. The Special Issue 'Foods of Plant Origin' covers biodiscovery, functionality, the effect of different cooking/preparation methods on bioactive (plant food) ingredients, and strategies to improve the nutritional quality of plant food by adding other food components using novel/alternative food sources or applying non-conventional preparation techniques. The Special issue was a big success with 13 high quality papers published (i.a. about the antimicrobial activity of Kakadu plum) and will therefore be republished by MDPI as a stand-alone Book in 2020.
2. **15-17 September 2019: Michael Netzel** attended the DAAD (German Academic Exchange Service) Research Ambassador Workshop/Training in Sydney, NSW. The main responsibility of a DAAD Research Ambassador is to promote research opportunities in Germany in his/her professional community, university or organisation, and discipline. This will provide unique opportunities for all HDR students and Postdoctoral Researchers involved in the Training Centre to learn new skills and improve their research capabilities which will subsequently benefit the Centre.



7. COMMENTARIES ABOUT THE PROJECT'S ACHIEVEMENTS

Press releases

'New opportunities for unique Australian native foods', Australian Research Council (ARC News), 14 November 2019, Media Release by The Hon Dan Tehan MP, Minister for Education and The Hon Dr John McVeigh MP, Member for Groom <https://www.arc.gov.au/news-publications/media/media-releases/new-opportunities-unique-australian-native-foods>

'Shaping Australia's food identity' The University of Queensland (UQ News), 14 November 2019, <https://www.uq.edu.au/news/article/2019/11/shaping-australia%E2%80%99s-food-identity>

Internal UQ releases:

'Gut-friendly bush tucker bread takes off in Darwin' The University of Queensland (UQ News), 8 July 2019, <https://www.uq.edu.au/news/article/2019/07/gut-friendly-bush-tucker-bread-takes-darwin>

'Producing uniquely Australian Foods' Featured on: Faculty of Engineering, Architecture and Information Technology News, 19 September 2019, <https://www.eait.uq.edu.au/news/article/producing-uniquely-australian-foods> and Queensland Alliance for Agriculture and Food Innovation <https://qaafi.uq.edu.au/article/2019/09/producing-uniquely-australian-foods>

Articles

'Gulkula is a growing success', Northern Territory Business News, 5 June 2019, <https://business.nt.gov.au/publications/publications/business-bulletins/previous-years-business-bulletins/business-bulletins-2019/april-to-june-2019/business-bulletin-30-may-2019>

Sultanbawa, Yasmina, 'Aussie wattle seed bread the latest superfood', Rural Weekly, 8 July 2019, <https://www.weeklytimesnow.com.au/news/rural-weekly/aussie-wattle-seed-bread-the-latest-superfood/news-story/64c70826c64c8f199a10352319ad88f1>

'Bush tucker bread to benefit Aussie Indigenous communities', by Gill Hyslop, 25 July 2019:

- <http://www.findglocal.com/AU/Brisbane/1758587187745792/UQ-Science>
- <https://f-magazine.online/?s=bush+tucker>
- <https://uqtrust.org.uk/gut-friendly-bush-tucker-bread-takes-off-in-darwin/>
- <http://www.mededpath.org/category/news-updates/page/2/>
- <https://www.foodprocessing.com.au/content/food-design-research/news/gut-friendly-bread-developed-using-bush-tucker-ingredients-1236073452>
- <https://www.bakeryandsnacks.com/Article/2019/07/25/Bush-tucker-bread-to-benefit-Aussie-Indigenous-communities>

'Producing uniquely Australian Foods' (full article) by Robert Burgin, UQ Research Impact, 12 September 2019, <https://stories.uq.edu.au/research/impact/2019/producing-uniquely-australian-foods/index.html> and Times Higher Education <https://www.timeshighereducation.com/hub/university-queensland/p/producing-uniquely-australian-foods>



‘Packed full of antioxidants, Australian Native foods are going global’, ABC News, 14 November 2019, YouTube Video, <https://www.youtube.com/watch?v=E9kXvTOMYd4&feature=youtu.be>

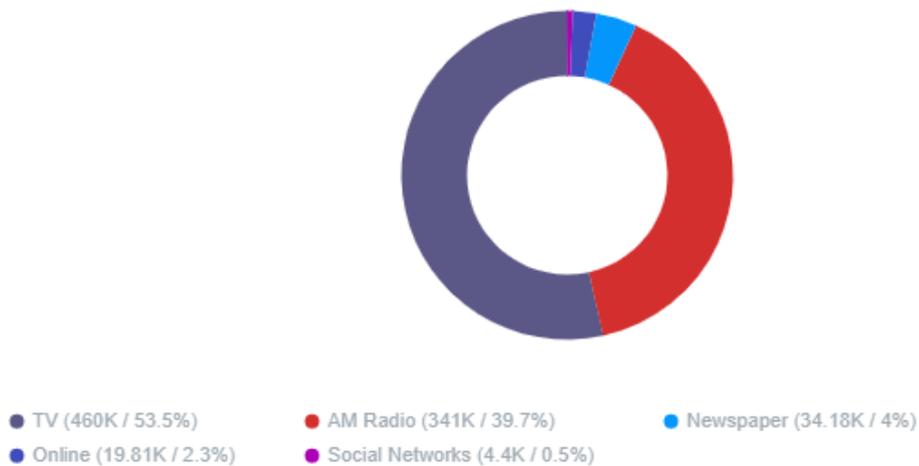
‘Australian bush tucker industry push to transform native foods for international consumption’, ABC News, 17 November 2019, <https://www.abc.net.au/news/2019-11-17/native-bush-foods-australian-bush-tucker-going-global/11658008>

Radio

Olarte Mantilla, Sandra (ICPD), **Sarah Hickey** (PI) and Emily Mbitjana, ‘Wattle seed - The new superfood’ Myf Warhurst - ABC Radio, 10 July 2019, <https://www.abc.net.au/radio/programs/myf-warhurst/gut/11296852>

National Profile for Uniquely Australian Foods

Media type overview (Potential Reach)



- Coverage generated by the Uniquely Australian Foods Centre Launch on 14 November 2019 reached a potential audience of 859,388.
- The story featured on ABC TV news in Darwin, Sydney, and Brisbane; and was covered on ABC Radio in Perth, Hobart, Canberra, Brisbane and Melbourne.
- The estimated \$ value of this coverage, as measured by its ASR – or advertising space rate – was AUD 560,084.

Social Media

- 15 Facebook posts
- 28 Twitter posts