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Nutritional Data for Australian Native Foods

*Supporting the Food Standards Australia and
New Zealand Nutritional Panel Calculator*



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Australian Government

**Rural Industries Research and
Development Corporation**

Nutritional Data for Australian Native Foods

**Supporting the Food Standards Australia and New Zealand
Nutritional Panel Calculator**

by Chris Read

October 2012

RIRDC Publication No. 12/099
RIRDC Project No. PRJ-006736

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Foreword

The Australian native plant food industry has identified several issues constraining growth and uptake of the novel food ingredients obtained from indigenous flora. One of these constraints is the lack of supporting technical and nutritional information which potential users (chefs, value-adders and processors) can draw upon in their quest to incorporate the ingredients, and the flavours they confer, into the national cuisine.

Most of the 20 key native food ingredients are utilised as ingredients in manufactured products, and it is a requirement of the Australian Food Standards Code that when manufactured products are offered for sale, the label should display the familiar nutritional panel information informing the consumer of a number of nutritional parameters (energy content, fat, protein, sugars etc). It is common manufacturing practice to employ the Food Standards authority's own on-line calculator to derive these panels when developing a new product.

The procedure simply requires the manufacturer to enter ingredient quantities into the web based form, whereupon the calculator draws on the extensive database to extrapolate the nutritional parameters for the finished product.

This project has succeeded in adding data for fourteen key native food products to the database behind the calculator, enabling formulators to confidently publish the nutritional values for their new products. This, in turn, will encourage wider use of the flavours and ingredients, and will help build a manufacturing market for them. The benefits, therefore, will flow to the producers and value-adders alike through building market diversity and scale.

This research has resulted in an extensive set of analytical results for each of the fourteen products – besides the basic nutritional panel calculator (NPC) data, the appendices to this report.

The project was proposed and planned by members of the Australian Native Food Industry body, and funded by a grant from RIRDC Core Funds, provided by the Australian Government. This funding was matched by cash contributions from a small group of committed native produce practitioners – growers, primary processors, and marketers including, notably, a substantial sponsorship from the Coles Indigenous Food Fund. ANFIL, and the researcher, are grateful for the financial support provided by all contributors, and for the generous donations of product, and supplementary information, provided.

This report is an addition to RIRDC's diverse range of over 2100 research publications, and it forms part of our New Plant Products R&D program, which aims to contribute to the program's first stated objective of 'Developing and supplying product information to support market access and market growth'.

Most of RIRDC's publications are available for viewing, free downloading or purchasing online at www.rirdc.gov.au. Purchases can also be made by phoning 1300 634 313.

Craig Burns

Managing Director

Rural Industries Research and Development Corporation

About the Author

Chris Read is a Founding Board Member of ANFIL (Australian Native Food Industry Ltd), a farmer in southern Tasmania, and, for the purposes of this project, a horticultural researcher, having worked on essential oils and native plant food research projects during the last 15 years, first at the University of Tasmania, and more recently in an independent capacity.

Acknowledgments

The author wishes to thank his correspondent at FSANZ, Gregory Milligan for his help with this project.

Abbreviations

ANFIL - Australian Native Food Industry Ltd

NPC - Nutritional Panel Calculator

NMI - National Measurement Institute - the Australian Government Analytical Laboratory

FSANZ - Food Standards Australia and New Zealand

NUTTAB 2010 - FSANZ reference database containing food composition data for several thousand foods, and nutrient data for up to 245 nutrients

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Executive Summary

What the report is about

This report details the analysis of a key group of 14 native species for their nutritional properties, in particular, those which are reported in the nutritional panels found on most manufactured products.

Through liaison with Food Standards Australia and New Zealand (FSANZ), this data has been incorporated into the database employed by the online calculator which is used by manufacturers to prepare these panels for their labelling.

Who is the report targeted at?

The stakeholders for the work presented in this report are the providers, producers and consumers of native food ingredients. In particular, the outcomes from the research will be available online to help generate the Nutritional Panels which are mandated for all commercially available manufactured food products in Australia.

Where are the relevant industries located in Australia?

The industry broadly represents products from a very wide range of plant communities and similarly diverse producers, business models, regions and food types.

Sub tropical and desert fruit, warm and cool temperate herbs and spices, arid zone fruits and seeds, and tropical tree fruit are represented. Producers tend to be concentrated in regional areas – in particular the central deserts, warm subtropical rainforest areas of SE Queensland, northern NSW, tropical areas in far northern Australia, and along the south coast of Victoria and South Australia and in Tasmania.

The best estimate of numbers of producers in the different sectors of the industry are reported in the recently released Australian Native Food Industry Stocktake (RIRDC Publication No 12/066).

Background

In order to move into mainstream consumption, the ingredients generally regarded as ‘native foods’, (i.e. edible products of indigenous Australian plant species), must be supported by the same level of scientific and technical information as are other commonly used foodstuffs.

In most cases the native food ingredients are used to confer special or unusual flavours to manufactured products, rather than as fresh ingredients in their own right. It follows that the best prospect for growth in the industry, and among the component species, is to encourage manufacture of products containing them. Manufacturers need reliable data describing nutrient content in these ingredients to facilitate their incorporation in manufactured products.

Aims/objectives

- To gather reliable, technically accurate data on nutritional properties, in particular the proximate analysis for 14 of the key native food ingredients regarded as commercially significant.

Methods used

Producers supplied representative samples of their raw ingredient products to a recognised analytical laboratory (NMI) in Victoria, where they were analysed for a number of nutritional parameters.

The results of this work were collated, combined with supplementary data indicating product type (format) post harvest treatment and typical applications, and provided to a working group within FSANZ which examined the information before incorporating it into their database.

Results/key findings

- At the time of completion of this report, the new data, relating to the 14 additional native food products, has been uploaded, and is now available for use in preparing nutritional panels ([http://www.foodstandards.gov.au/foodstandards/nutritionpanelcalculator/npcdatabase2011 files/](http://www.foodstandards.gov.au/foodstandards/nutritionpanelcalculator/npcdatabase2011files/))
- Detailed additional information regarding composition is provided in the Appendix to this report
- The availability of the new data will allow manufacturers, chefs and others to confidently include these products in their recipes, and to easily generate the mandatory nutritional panels, incorporating the contributions of these ingredients.

Implications for relevant stakeholders

- The native food industry can take confidence that the native produce they grow and supply can be incorporated into recipes for which nutritional panel can be generated to satisfy the Food Standards Authority
- Policy makers can recognise that Australian native foods, products and cuisine are part of the normal dietary offering, and need support at a policy level in order that they may be traded both within Australia, and in export markets.

Recommendations

The results of this work need to be targeted at individuals and enterprises that use native food ingredients in manufacturing products for human consumption.

Introduction

Provision of nutritional data for food ingredients is essential for the delivery of any foodstuff to the market today. Nutritional information about native food products has, until recently often been provided on an ad hoc basis by those producers able or inclined to obtain data for the purposes of their own marketing effort.

Food Standards Australia and New Zealand (FSANZ) maintain an on-line Nutritional Panel Calculator (NPC) for use by the food industry in preparing compositional tables for food ingredients and recipes. The calculator is supported by a database of nutritional information ('NPC Database 2011') that meets strict standards of conformity, so that the panels generated are consistent and reliable.

The relationship between these resources is described* as follows: 'the NPC database 2011 contains nutrient data for 2520 foods/ ingredients, sourced from several previously published Australian food composition databases including NUTTAB (NUTrient TABLES) (mainly NUTTAB 2010) and AUSNUT (AUStralian food and NUTrient database) (mainly AUSNUT 2007) databases. NUTTAB is Australia's reference nutrient database. AUSNUT is a survey database. It contains nutrient values for foods consumed during national nutrition surveys. It should be noted that neither of these databases have been designed for the purposes of calculating nutrition information panels'.

While FSANZ' general database of nutritional tables, - NUTTAB 2010, includes a 'subset' of data for some 487 indigenous edible plant species, this data omits a number of important species for which the available data is incomplete, or has been obtained using non-conforming methodologies and is NOT adequate for the purposes of the database.

The central task of the current project, therefore, is to derive good quality data to complete the NUTTAB 2010 listing for at least the main commercial native food species, and to ensure that this data is incorporated into the NPC Database 2011, so that the information is readily available on-line for native food stakeholders at all levels in the industry.

Australian Native Food Industry Ltd (ANFIL) worked with the Novel Foods Reference Group and the Advisory Committee on Novel Food in FSANZ during 2007 – 2009 to present documentary evidence and supporting explanation for consideration of twenty native food species as 'traditional' foods. This was part of a larger project investigating the status of these native food products in the national and international jurisdictions. The result of this work was the acceptance by FSANZ of all twenty species as 'traditional Australian foods'.

This project was proposed with a budget adequate to provide data for eight key products: Lemon and anise myrtle, native pepper leaf and berry, desert limes, fingerlimes, lemon aspen and a second species of Davidson plum.

In the final implementation, as a result of strong support from producers, the Coles Indigenous Food Fund and other sponsors, the project generated data for 14 products in all – the additional products being satinash, river mint, sea parsley, bush tomato, kakadu plum, saltbush, and strawberry gum. In the event, the second species of Davidson Plum was dropped from the project after extensive discussions with several producers concluded that the industry did not consider it of enough importance or concern to warrant separate consideration.

*Note: This explanation is available in more detail from the FSANZ website (www.foodstandards.gov.au/); Explanatory Notes to the NPC Database, FSANZ 2011

Objectives

In order to provide FSANZ with good quality data on the main commercial native food species, to enable them to be incorporated in the NPC, this project set out to:

- develop (through consultation with key industry participants, FSANZ and the National Measurement Institute (NMI)) a sampling protocol to ensure representative, good quality product of commercial grade is utilised for analysis;
- coordinate the acquisition and presentation of sample material for analysis;
- collate and document all supplementary information required for the FSANZ analytical program;
- engage the services of NMI – a Federal Government analytical facility in Melbourne to conduct analysis and prepare tables suitable for submission to FSANZ, liaise with representatives of FSANZ to ensure incorporation of this data and existing nutritional data into the NUTTAB 2010 and the NPC database 2011, as soon as possible and to address some minor problems of nomenclature and description revealed during the initial research into the current content of the FSANZ indigenous food files.

Methodology

The project began in July 2011, with detailed discussions with representatives from FSANZ, following investigation of the Food Standards database to determine exactly the status of the species in which commercial trade was considered to be significant.

A summary of the conclusions of these discussions is shown below (Table 1), which includes notes explaining the current level of nutritional data available through the FSANZ website. As shown, while some species are accessible via the existing NPC, (grey shade), the names used are confusing or not widely known. Several priority species, for which there is some data available, are listed in the NUTTAB database, but because the data is inadequate, it is not available to the NPC (orange shade). Lastly, a group of species regarded as commercially important are completely absent from the FSANZ data store (red shade), described as ‘not presented’.

Table 1: Subject species: Current listing status and nomenclature

Industry preferred common names	NUTTAB Name	Status in FSANZ Databases etc
Wattleseed (<i>Acacia</i> spp., predominantly <i>Acacia victoriae</i>)	Gundabluey	Gundabluey' included in NUTTAB 2006 and NUTTAB 2010. Wattleseed, acacia, ground included in the new NPC (not gundabluey)
Davidson plum (<i>Davidsonia pruriens</i>)	Davidson plum	Included in NUTTAB 2006, NUTTAB 2010 and the new NPC**
Riberry (<i>Syzygium leuhmanii</i>)	Small leaf watergum	Included in NUTTAB 2006, NUTTAB 2010 and the new NPC
Illawarra plum (<i>Podocarpus elatus</i>)	Brown pine	Included in NUTTAB 2006, NUTTAB 2010 and the new NPC
Quandong (<i>Santalum acuminatum</i>)		Included in NUTTAB 2006, NUTTAB 2010 and the new NPC
Lemon myrtle (<i>Backhousia citriodora</i>)		Included in NUTTAB 2010
Bush tomato (<i>Solanum centrale</i>)	Bush raisin	Included in NUTTAB 2006 and NUTTAB 2010
Kakadu plum (<i>Terminalia ferdinandiana</i>)	Billy goat plum	Included in NUTTAB 2006 and NUTTAB 2010
Finger limes (<i>Citrus australasica</i>)		Included in NUTTAB 2006 and NUTTAB 2010
Desert lime (<i>Citrus glauca</i>)		Not presented
Anise myrtle (<i>Syzygium anisatum</i>)		Not presented
Tasmania pepperberry (<i>Tasmania lanceolata</i>): Berry		Not presented
Tasmania pepperberry (<i>Tasmania lanceolata</i>): Leaf		Not presented
Lemon aspen (<i>Acronicia acidula/subarosa</i>)		Not presented
Satinash (<i>Syzygium fibrosum</i>)		Not presented
Saltbush (<i>Atriplex</i> spp.)		Not presented
Rivermint (<i>Mentha australis</i>)		Not presented
Sea Parsley (<i>Apium prostratum</i>)		Not presented
Olida (<i>Eucalyptus olida</i>)		Not presented

Fourteen of these products (including two for Tasmania pepper) required substantial data collection and analysis in order to be suitable for inclusion in the FSANZ databases.

Prominent producers of each of the products were approached to contribute both representative product samples, and supporting cash contributions. In this way the project was able to almost double the number of products assessed.

Sampling Protocol

Discussions between producers, the principle researcher and representatives of FSANZ and the analysing laboratory, National Measurement Institute (NMI), established a basic sampling and sample handling protocol. From this, a Chain of Custody form and simple cover sheet was developed, with instructions to guide the producer in preparing and despatching their sample(s) and gathering basic information about the sample: the plant species, plant part used, post harvest preparation and further processing. An example of the supplementary data is shown below in Table 2.

Table 2: Supplementary information provided by the producer, to accompany sample submissions to NMI

Product Name (commercial preference)	Anise Myrtle – leaf, dried and ground
Alternative names, synonyms, if any.	-Formerly Aniseed myrtle
Botanical Name	<i>Syzygium anisatum</i> , formerly <i>Anetholea anisata</i> (Vickery) Peter G Wilson (formerly <i>Backhousia anisata</i>)
Commentary on nomenclature	Present name chosen to avoid perceived confusion with aniseed (Apiaceae), and seed spice products
Producer/manufacturer:	Australian Rainforest Products
Sample location (origin/production area)	Lismore district, orchard grown
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Leaf is dried, stripped from twigs, milled to order.
Sampling method:	Subsample ex commercial batch 210239
Date of harvest	18/5/2011
Sampling date:	17 October 2011
Date of sample despatch:	17 October 2011

In the event, good quality sample material of all 14 products was obtained and in a coordinated effort, sent to NMI in Melbourne, where the analyses required to generate nutritional panels was undertaken.

Analytical Methods

NMI offer a standard Nutritional Panel Analysis based on the requirements of the Food Standards Code (FSC) mandatory tests, which is shown in Table 3 below.

Table 3: National Measurement Institute Nutritional Panel Analysis

NUTRITIONAL PANEL ANALYSIS (as per FSC mandatory tests)	LIMIT OF REPORTING (mg/kg)
Energy Calculation	
Fat	0.2mg/100g
Protein	0.2mg/100g
Carbohydrate (by difference)	
Sugars	0.1g/100g
Sodium	Mg/100g
Saturated Fat (Calculation)	
Moisture (to calculate Energy and carbohydrate)	0.2mg/100g
Ash (to calculate Energy and carbohydrate)	0.1g/100g
FAMES (to calculate saturated fat)	0.10%

The methodologies used for these assays are detailed in Appendix 2.

In addition to these assays, in most cases analysis for Total Dietary Fibre analysis and Starch was also undertaken, under contract by NMI to an independent laboratory (Grain Growers, North Ryde, NSW).

Data Presentation

For the purposes of supplying the NMI results to FSANZ it was agreed that we would supply a combined laboratory report with the details in Table 2 above directly to the official managing the project for FSANZ. These submission files are included at Appendix 1.

The results were reviewed by a FSANZ Working Group, checked for consistency with other similar food types and plant products to ensure the results 'made sense'. In several cases issues were raised with the researcher and further examination of the laboratory data and calculations was requested where apparent anomalies were detected. This process underwent several iterations until the group were satisfied with the results presented. The data were then prepared for uploading into the NUTTAB 2010 and AUSNUT databases, and from these, the proximate analysis (a subset of the whole dataset) extracted for incorporation into the nutritional panel calculator.

Results

Raw data is presented in the NMI laboratory reports in Appendix 1. These tables include a great deal of data regarding the composition of the carbohydrate and fat fractions, sodium levels, fibre and starch. From the data presented in those tables, the information necessary to generate nutritional panels was extracted as summarised in Table 4.

This table essentially summarises the data now available for each of the native food products via the FSANZ On-Line Nutritional Panel Calculator and the nutritional database.

Table 4: Summary of proximate analysis for subject species

Industry preferred names	Food names presented on the NPC	Descriptions	Energy, Kj	Protein, g.	Total fat, g	Total saturated fatty acids, g	Available carbohydrate, g	Total sugars, g
Lemon myrtle, leaf, dried, ground	Lemon myrtle, leaf, dried, ground	Dried leaf of <i>Backhousia citriodora</i> , whole or ground.	683	8.3	1.8	0.5	1.8	1.8
Bush tomato, fruit, dried	Bush tomato, fruit, dried	Dried fruits of <i>Solanum centrale</i>	998	10.3	6.0	1.5	29.2	29.0
Kakadu plum, deseeded, pureed and frozen	Kakadu plum, fruit	Deseeded fruit pulp of <i>Terminalis ferdinandiana</i>	116	1.0	0.0	0.0	2.5	2.5
Finger lime, fruit, frozen	Finger lime, fruit	Fruit pulp of <i>Citrus australasica</i>	144	1.6	1.0	0.2	1.3	1.2
Desert lime, fruit, frozen	Desert lime, fruit	Fruit pulp of <i>Citrus glauca</i>	198	0.1	2.7	1.0	4.0	4.0
Anise myrtle, leaf, dried, ground	Anise myrtle, leaf, dried, ground	Dried leaf of <i>Syzygium anisatum</i> , whole or ground	629	8.1	0.0	0.0	3.6	3.6
Native pepper, berry, dried	Native pepper, berry, dried	Dried ripe berries of <i>Tasmannia lanceolata</i>	1073	4.8	6.7	0.6	24.0	24.0
Native pepper, leaf, dried, ground	Native pepper, leaf, dried, ground	Dried leaf of <i>Tasmannia lanceolata</i> , ground	749	7.4	4.5	1.5	2.7	2.5
Lemon aspen, fruit juice, frozen	Lemon aspen, fruit juice	Juice or puree of <i>Acrornicia acidula</i> or <i>A. subarosa</i>	120	2.0	0.9	0.2	1.9	1.9
Satinash, fruit, deseeded, frozen	Satinash, fruit	Deseeded pulp of <i>Syzygium fibrosum</i>	46	0.4	0.0	0.0	1.6	1.4
Saltbush, leaf, fresh, refrigerated	Saltbush, leaf, fresh	Fresh leaves of <i>Atriplex nummularia</i>	111	3.6	0.3	0.0	0.1	0.0
River mint, leaf, fresh, refrigerated	River mint, leaf, fresh	Fresh leaf of <i>Mentha australis</i>	130	4.1	0.0	0.0	0.6	0.5
Sea Parsley, leaf, fresh, refrigerated	Sea Parsley, leaf, fresh	Fresh leaf of <i>Apium prostratum</i>	110	2.5	0.3	0.0	1.5	1.4
Olida, leaf, dried, ground	Olida, leaf, dried, ground	Dried ground leaf of <i>Eucalyptus olida</i>	784	9.4	4.8	0.9	4.4	4.1

Implications

Issues arising:

- Nomenclature – The importance of employing consistent names for these indigenous food products which, in some cases runs counter to Aboriginal practice, regional preference or popular argot cannot be emphasised enough. The industry and associated interested parties need to recognise that, if the products are to find use in the broader culinary context, many of the people using them will have no familiarity with, or even interest in the historical and cultural context. This is a watershed concept – the industry needs to decide collectively if we aspire to turn these products into our Australian contribution to the international food ingredient market, or if we prefer to try to retain them in a cultural context – special, local, historical, regional etc – with associated layers of meaning and investment.
- Further Work – While the 14 species added in the present exercise, together with the five species already accessible to the calculator represent the largest portion of the commercially available native food products, there remain a few obvious examples of products demanding inclusion in the near future. Of these, Muntries (*Kunzea pomifera* fruit) are the most important, with commercial production (albeit small) already occurring in South Australia. It is likely that a repeat of the current exercise at some time within the next five years would be easily justified.
- Access and use of the NPC- At the completion of this project, it is important to alert potential manufacturers and value adders to the availability of this information online, and within the Food Standards Code of Australia. The most effective means available to alert formulators to the new information are the FSANZ website and other publications, the ANFIL website and regular bulletins, and in other food industry publications. The latter media present opportunities for ANFIL to develop a press release announcing both the availability of the data – and the special flavour and nutritional properties of the products themselves.

Recommendations

It is to be hoped that FSANZ, RIRDC and ANFIL will all undertake some coordinated publicity effort to inform the industry (producers, marketers, manufacturers, chefs researchers and educators) that the new data is available online, it is reliable and can be used immediately to calculate nutritional panels for any products containing these fourteen (and the five already listed) indigenous foods.

Appendices

Appendix 1: Submissions to FSANZ

The following dossier consolidates all the laboratory output from NMI, together with production, product format, sampling source and technique for each of the subject species.

1. Anise Myrtle

Alternative names, synonyms, if any.	Formerly Aniseed myrtle
Botanical Name	<i>Syzygium anisatum</i> , formerly <i>Anetholea anisata</i> (Vickery) Peter G Wilson (formerly <i>Backhousia anisata</i>)
Commentary on nomenclature	Present name chosen to avoid perceived confusion with aniseed (Apiaceae), and seed spice products
Producer/manufacturer:	Australian Rainforest Products
Sample location (origin/production area)	Lismore district, orchard grown
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Leaf is dried, stripped from twigs, milled to order.
Sampling method:	Subsample ex commercial batch 210239
Date of harvest	18/5/2011
Sampling date:	17 October 2011
Date of sample despatch:	17 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 20-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/022650	ARP anise	Anise Myrtle Leaf- Dried and Ground

Lab Reg No.	Sample Reference	Units	V11/022650 ARP anise	Method
Trace Elements				
Sodium		mg/100g	69	VL247


Paul Adorno, Section Manager
Inorganics - Vic

21-MAR-2012

Lab Reg No.	Sample Reference	Units	V11/022650 ARP anise	Method
Proximates				
Fructose		g/100g	1.5	VL295
Glucose		g/100g	1.4	VL295
Sucrose		g/100g	0.7	VL295
Maltose		g/100g	< 0.2	VL295
Lactose		g/100g	< 0.2	VL295
Total Sugars		g/100g	3.6	VL295
Moisture		g/100g	7.4	VL298
Fat (Mojonnier extraction)		g/100g	< 0.2	VL302
Saturated Fat		g/100g	< 0.1	VL289
Protein (N x 6.25)		g/100g	8.1	VL299
Ash		g/100g	4.8	VL286
Carbohydrates		g/100g	26	VL412
Energy (kJ)		kJ/100g	1010	VL412
Mono trans fats		g/100g	< 0.1	VL289
Mono-unsaturated fat		g/100g	< 0.1	VL289
Omega 3 fats		g/100g	< 0.1	VL289
Omega 6 fats		g/100g	< 0.1	VL289

REPORT OF ANALYSIS

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Report No. RN906000

Lab Reg No.		V11/022650			
Sample Reference	Units	ARP anise			Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	< 0.1			VL289
Trans fats	g/100g	< 0.1			VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sam Barone

Sam Barone, Chemist
Organics - Vic

21-MAR-2012

Lab Reg No.		V11/022650			
Sample Reference	Units	ARP anise			Method
Starch	g/100g	< 0.1			BRIS6
Total Dietary Fibre	g/100g	53.7			

V11/022650

Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.

Grain Growers Job Reference: 01328

Fibre determined by Grain Growers, North Ryde NSW. NATA Accred. 66.

Grain Growers Job Reference: 01970

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

21-MAR-2012

Results relate only to the sample(s) tested.

This Report supersedes reports: *RN884160*

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2. Bush Tomato

Alternative names, synonyms, if any.	Akudjera, Akudjura, Desert Raisin, Kutjera
Botanical Name	<i>Solanum centrale</i>
Commentary on nomenclature	Present name one of several, but preferred as the indigenous alternative is spelled in a variety of ways and may mislead.
Producer/manufacturer:	Outback Pride
Sample location (origin/production area)	Nappery Station, NT
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Sun dried, hand harvested fruits.
Sampling method:	Subsample ex commercial pack
Date of harvest	Sept 2011
Sampling date:	20 October 2011
Date of sample despatch:	20 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : 19-OCT-2011 Date Received : 24-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/028080	.	Bush Tomato (<i>Solanum centrale</i>) Dried fruit

Lab Reg No.	Sample Reference	Units	V11/028080	Method
Trace Elements				
Sodium		mg/100g	< 1	VL247

Paul Adorno, Section Manager
Inorganics - Vic

9-NOV-2011

Lab Reg No.	Sample Reference	Units	V11/028080	Method
Proximates				
Fructose		g/100g	1.8	VL295
Glucose		g/100g	2.2	VL295
Sucrose		g/100g	25	VL295
Maltose		g/100g	< 0.2	VL295
Lactose		g/100g	< 0.2	VL295
Total Sugars		g/100g	29	VL295
Moisture		g/100g	17.5	VL298
Fat (Mojonnier extraction)		g/100g	6.0	VL302
Saturated Fat		g/100g	1.8	VL289
Protein (N x 6.25)		g/100g	10.3	VL299
Ash		g/100g	5.7	VL286
Carbohydrates		g/100g	47	VL412
Energy (kJ)		kJ/100g	1300	VL412
Mono trans fats		g/100g	< 0.1	VL289
Mono-unsaturated fat		g/100g	1.9	VL289
Omega 3 fats		g/100g	0.1	VL289
Omega 6 fats		g/100g	1.9	VL289

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Lab Reg No.		V11/028080			
Sample Reference	Units				Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	2.0			VL289
Trans fats	g/100g	< 0.1			VL289
Saturated Fatty Acids					
C4:0 Butyric	%	0.1			VL289
C6:0 Caproic	%	< 0.1			VL289
C8:0 Caprylic	%	0.2			VL289
C10:0 Capric	%	0.5			VL289
C12:0 Lauric	%	1.2			VL289
C14:0 Myristic	%	4.7			VL289
C15:0 Pentadecanoic	%	0.1			VL289
C16:0 Palmitic	%	20.3			VL289
C17:0 Margaric	%	0.1			VL289
C18:0 Stearic	%	2.7			VL289
C20:0 Arachidic	%	0.3			VL289
C22:0 Behenic	%	0.3			VL289
C24:0 Lignoceric	%	0.3			VL289
Total Saturated	%	30.9			VL289
Mono-unsaturated Fatty Acids					
C14:1 Myristoleic	%	< 0.1			VL289
C16:1 Palmitoleic	%	2.4			VL289
C17:1 Heptadecenoic	%	< 0.1			VL289
C18:1 Oleic	%	31.2			VL289
C20:1 Eicosenic	%	0.2			VL289
C22:1 Docosenoic	%	< 0.1			VL289
C24:1 Nervonic	%	0.2			VL289
Total Mono-unsaturated	%	33.9			VL289
Poly-unsaturated Fatty Acids					
C18:2w6 Linoleic	%	32.6			VL289
C18:3w6 gamma-Linolenic	%	< 0.1			VL289
C18:3w3 alpha-Linolenic	%	1.9			VL289
C20:2w6 Eicosadienoic	%	0.1			VL289
C20:3w6 Eicosatrienoic	%	< 0.1			VL289
C20:3w3 Eicosatrienoic	%	< 0.1			VL289
C20:4w6 Arachidonic	%	< 0.1			VL289
C20:5w3 Eicosapentaenoic	%	< 0.1			VL289
C22:2w6 Docosadienoic	%	0.1			VL289
Omega 3 Fatty Acids	%	2.0			VL289
Omega 6 Fatty Acids	%	32.9			VL289
C22:4w6 Docosatetraenoic	%	< 0.1			VL289
C22:5w3 Docosapentaenoic	%	< 0.1			VL289
C22:6w3 Docosahexaenoic	%	< 0.1			VL289
Total Poly-unsaturated	%	34.8			VL289

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Lab Reg No.		V11/028080			
Sample Reference					
	Units				Method
Poly-unsaturated Fatty Acids					
Total Mono Trans Fatty Acids	%	< 0.1			VL289
Total Poly Trans Fatty Acids	%	0.2			VL289
P:M:S Ratio		1.1:1.1:1			VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Samantha Duong

Samantha Duong, Analyst
Organics - Vic

Paul Adorno

Paul Adorno, Section Manager
Food Composition - Vic

9-NOV-2011

Lab Reg No.		V11/028080			
Sample Reference					
	Units				Method
Proximates					
Starch	g/100g	0.2			BRIS6
Total Dietary Fibre	g/100g	13.1			

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

9-NOV-2011

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3. Desert Lime

Product Name (commercial preference)	Desert Lime
Alternative names, synonyms, if any.	-
Botanical Name	<i>Citrus glauca</i>
Commentary on nomenclature	-
Producer/manufacturer:	Australian Desert Limes 90 Stinson Lane, Roma Qld. 4455
Sample location (origin/ production area)	Producer's property, Roma, Qld
Clone, variety or selection, if any:	-
Batch preparation (post harvest)	Brush cleaned, size graded, frozen and stored at -21°
Sampling method:	Sub sample from standard batch
Date of harvest	November 2010
Sampling date:	18/10/11
Date of sample despatch:	18/10/11



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Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 20-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/022680	.	450grams Desert Limes Harvested, Cleaned, Packed Nov 2010 Stored Frozen Since at -21C

Lab Reg No.	Sample Reference	Units	V11/022680				Method
Proximates							
Fructose		g/100g	1.1				VL295
Glucose		g/100g	1.0				VL295
Sucrose		g/100g	1.9				VL295
Maltose		g/100g	<0.2				VL295
Lactose		g/100g	<0.2				VL295
Total Sugars		g/100g	4.0				VL295
Moisture		g/100g	80.9				VL298

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

28-OCT-2011

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4. Fingerlimes

Product Name (commercial preference)	Fingerlimes
Alternative names, synonyms, if any.	Citrus caviar
Botanical Name	<i>Citrus australasica</i>
Commentary on nomenclature	Formerly <i>Microcitrus australasica</i>
Producer/manufacturer:	Wild Fingerlimes
Sample location (origin/ production area)	Byron Bay district, orchard grown
Clone, variety or selection, if any:	Combined sample 2 varieties: Rainforest Pearl, Emerald
Batch preparation (post harvest)	Frozen immediately after harvest.
Sampling method	Subsample ex commercial stock
Date of harvest	April - May 2011
Sampling date:	13 October 2011
Date of sample despatch:	13 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : 21-OCT-2011 Date Received : 24-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/028081	-	Finger Limes (C.australasica)

Lab Reg No.	Sample Reference	Units	V11/028081	Method
			-	
Trace Elements				
Sodium	mg/100g	1.1		VL247


Paul Adorno, Section Manager
Inorganics - Vic

9-NOV-2011

Lab Reg No.	Sample Reference	Units	V11/028081	Method
			-	
Proximates				
Fructose	g/100g	0.5		VL295
Glucose	g/100g	0.5		VL295
Sucrose	g/100g	0.2		VL295
Maltose	g/100g	< 0.2		VL295
Lactose	g/100g	< 0.2		VL295
Total Sugars	g/100g	1.2		VL295
Moisture	g/100g	84.4		VL298
Fat (Mojonnier extraction)	g/100g	1.0		VL302
Saturated Fat	g/100g	0.3		VL289
Protein (N x 6.25)	g/100g	1.6		VL299
Ash	g/100g	0.6		VL286
Carbohydrates	g/100g	5		VL412
Energy (kJ)	kJ/100g	210		VL412
Mono trans fats	g/100g	< 0.1		VL289
Mono-unsaturated fat	g/100g	0.3		VL289
Omega 3 fats	g/100g	0.2		VL289
Omega 6 fats	g/100g	0.2		VL289

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Lab Reg No.	V11/028081				
Sample Reference					
	Units				Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	0.4			VL289
Trans fats	g/100g	< 0.1			VL289
Saturated Fatty Acids					
C4:0 Butyric	%	< 0.1			VL289
C6:0 Caproic	%	< 0.1			VL289
C8:0 Caprylic	%	< 0.1			VL289
C10:0 Capric	%	0.2			VL289
C12:0 Lauric	%	0.9			VL289
C14:0 Myristic	%	0.2			VL289
C15:0 Pentadecanoic	%	< 0.1			VL289
C16:0 Palmitic	%	17.3			VL289
C17:0 Margaric	%	0.3			VL289
C18:0 Stearic	%	7.2			VL289
C20:0 Arachidic	%	0.8			VL289
C22:0 Behenic	%	0.4			VL289
C24:0 Lignoceric	%	0.7			VL289
Total Saturated	%	28.0			VL289
Mono-unsaturated Fatty Acids					
C14:1 Myristoleic	%	< 0.1			VL289
C16:1 Palmitoleic	%	0.7			VL289
C17:1 Heptadecenoic	%	< 0.1			VL289
C18:1 Oleic	%	32.4			VL289
C20:1 Eicosenic	%	0.2			VL289
C22:1 Docosenoic	%	< 0.1			VL289
C24:1 Nervonic	%	0.1			VL289
Total Mono-unsaturated	%	33.4			VL289
Poly-unsaturated Fatty Acids					
C18:2w6 Linoleic	%	21.4			VL289
C18:3w6 gamma-Linolenic	%	< 0.1			VL289
C18:3w3 alpha-Linolenic	%	15.3			VL289
C20:2w6 Eicosadienoic	%	< 0.1			VL289
C20:3w6 Eicosatrienoic	%	0.5			VL289
C20:3w3 Eicosatrienoic	%	< 0.1			VL289
C20:4w6 Arachidonic	%	< 0.1			VL289
C20:5w3 Eicosapentaenoic	%	0.3			VL289
C22:2w6 Docosadienoic	%	< 0.1			VL289
Omega 3 Fatty Acids	%	16.0			VL289
Omega 6 Fatty Acids	%	22.0			VL289
C22:4w6 Docosatetraenoic	%	< 0.1			VL289
C22:5w3 Docosapentaenoic	%	0.2			VL289
C22:6w3 Docosahexaenoic	%	0.2			VL289
Total Poly-unsaturated	%	38.0			VL289

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Lab Reg No.		V11/028081				
Sample Reference		-				
	Units					Method
Poly-unsaturated Fatty Acids						
Total Mono Trans Fatty Acids	%	< 0.1				VL289
Total Poly Trans Fatty Acids	%	0.5				VL289
P:M:S Ratio		1.4:1.2:1				VL289

SNahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Samantha Duong

Samantha Duong, Analyst
Organics - Vic

Paul Adorno

Paul Adorno, Section Manager
Food Composition - Vic

9-NOV-2011

Lab Reg No.		V11/028081				
Sample Reference		-				
	Units					Method
Proximates						
Starch	g/100g	0.1				BRIS6
Total Dietary Fibre	g/100g	7.2				

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

9-NOV-2011

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5. Kakadu Plum

Product Name (commercial preference)	Kakadu Plum:
Alternative names, synonyms, if any.	Referred to in FSANZ NUTTAB as 'Billy Goat Plum'; Gubinge
Botanical Name	<i>Terminalia ferdinandiana</i>
Commentary on nomenclature	
Producer/manufacturer:	TBC
Sample location (origin/ production area)	
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Deseeded, pureed and frozen
Sampling method:	Sample from commercial pack
Date of harvest	April 2011
Sampling date:	20 October 2011
Date of sample despatch:	20 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBRIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : 19-OCT-2011 Date Received : 24-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaas	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/028079	.	Kakadu Plum (Terminalia ferdinandia) pulp

Lab Reg No.	Sample Reference	Units	V11/028079	Method
Trace Elements				
Sodium	mg/100g	21		VL247


Paul Adorno, Section Manager
Inorganics - Vic

9-NOV-2011

Lab Reg No.	Sample Reference	Units	V11/028079	Method
Proximates				
Fructose	g/100g	1.3		VL295
Glucose	g/100g	1.0		VL295
Sucrose	g/100g	<0.2		VL295
Maltose	g/100g	<0.2		VL295
Lactose	g/100g	<0.2		VL295
Total Sugars	g/100g	2.3		VL295
Moisture	g/100g	85.8		VL298
Fat (Mojonnier extraction)	g/100g	<0.2		VL302
Saturated Fat	g/100g	<0.1		VL289
Protein (N x 6.25)	g/100g	1.0		VL299
Ash	g/100g	0.7		VL286
Carbohydrates	g/100g	5		VL412
Energy (kJ)	kJ/100g	160		VL412
Mono trans fats	g/100g	<0.1		VL289
Mono-unsaturated fat	g/100g	<0.1		VL289
Omega 3 fats	g/100g	<0.1		VL289
Omega 6 fats	g/100g	<0.1		VL289

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Lab Reg No.	V11/028079				
Sample Reference					
Units					Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	< 0.1			VL289
Trans fats	g/100g	< 0.1			VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Samantha Duong

Samantha Duong, Analyst
Organics - Vic

Paul Adorno

Paul Adorno, Section Manager
Food Composition - Vic

9-NOV-2011

Lab Reg No.	V11/028079				
Sample Reference					
Units					Method
Starch	g/100g	< 0.1			BRIS6
Total Dietary Fibre	g/100g	7.1			

V11/028079

-V11/028081

Fibre and Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.

Grain Growers Job Reference:

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

9-NOV-2011

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6. Lemon Aspen

Product Name (commercial preference)	Lemon Aspen – frozen puree
Alternative names, synonyms, if any.	-
Botanical Name	<i>Acronicia acidula/subarosa</i>
Commentary on nomenclature	-
Producer/manufacturer:	Rainforest Bounty
Sample location (origin/ production area)	Atherton Tableland;
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	De stalked, then washed in 10% vinegar solution before juicing with a medium filter and freezing juice in sterilised plastic bottles
Sampling method:	Subsample ex commercial batch
Date of harvest	21/4/2011
Sampling date:	18 October 2011
Date of sample despatch:	18 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 20-Oct-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaas	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/022679	.	Lemon Aspen Purée

Lab Reg No.	Sample Reference	Units	V11/022679	Method
			.	
Trace Elements				
Sodium	mg/100g	< 1		VL247

Paul Adorno, Section Manager
Inorganics - Vic

4-Nov-2011

Lab Reg No.	Sample Reference	Units	V11/022679	Method
			.	
Proximates				
Fructose	g/100g	1.4		VL295
Glucose	g/100g	0.5		VL295
Sucrose	g/100g	<0.2		VL295
Maltose	g/100g	<0.2		VL295
Lactose	g/100g	<0.2		VL295
Total Sugars	g/100g	1.9		VL295
Moisture	g/100g	88.5		VL298
Fat (Mojonnier extraction)	g/100g	0.9		VL302
Saturated Fat	g/100g	0.2		VL289
Protein (N x 6.25)	g/100g	2.0		VL299
Ash	g/100g	0.6		VL286
Carbohydrates	g/100g	5		VL412
Energy (kJ)	kJ/100g	170		VL412
Mono trans fats	g/100g	<0.1		VL289
Mono-unsaturated fat	g/100g	0.2		VL289
Omega 3 fats	g/100g	<0.1		VL289
Omega 6 fats	g/100g	0.3		VL289

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Lab Reg No.		V11/022679			
Sample Reference	Units				Method
Proximates					
Poly trans fats	g/100g	<0.1			VL289
Poly-unsaturated fat	g/100g	0.4			VL289
Trans fats	g/100g	<0.1			VL289
Saturated Fatty Acids					
C4:0 Butyric	%	0.2			VL289
C6:0 Caproic	%	<0.1			VL289
C8:0 Caprylic	%	0.3			VL289
C10:0 Capric	%	0.4			VL289
C12:0 Lauric	%	1.3			VL289
C14:0 Myristic	%	0.8			VL289
C15:0 Pentadecanoic	%	0.7			VL289
C16:0 Palmitic	%	16.4			VL289
C17:0 Margeric	%	1.3			VL289
C18:0 Stearic	%	2.0			VL289
C20:0 Arachidic	%	0.4			VL289
C22:0 Behenic	%	0.4			VL289
C24:0 Lignoceric	%	1.7			VL289
Total Saturated	%	26.1			VL289
Mono-unsaturated Fatty Acids					
C14:1 Myristoleic	%	0.2			VL289
C16:1 Palmitoleic	%	11.9			VL289
C17:1 Heptadecenoic	%	0.7			VL289
C18:1 Oleic	%	9.1			VL289
C20:1 Eicosenic	%	<0.1			VL289
C22:1 Docosenoic	%	<0.1			VL289
C24:1 Nervonic	%	<0.1			VL289
Total Mono-unsaturated	%	21.9			VL289
Poly-unsaturated Fatty Acids					
C18:2w6 Linoleic	%	35.6			VL289
C18:3w6 gamma-Linolenic	%	<0.1			VL289
C18:3w3 alpha-Linolenic	%	10.7			VL289
C20:2w6 Eicosadienoic	%	0.2			VL289
C20:3w6 Eicosatrienoic	%	<0.1			VL289
C20:3w3 Eicosatrienoic	%	<0.1			VL289
C20:4w6 Arachidonic	%	0.2			VL289
C20:5w3 Eicosapentaenoic	%	0.2			VL289
C22:2w6 Docosadienoic	%	0.2			VL289
Omega 3 Fatty Acids	%	10.9			VL289
Omega 6 Fatty Acids	%	36.2			VL289
C22:4w6 Docosatetraenoic	%	<0.1			VL289
C22:5w3 Docosapentaenoic	%	<0.1			VL289
C22:6w3 Docosahexaenoic	%	<0.1			VL289
Total Poly-unsaturated	%	47.1			VL289

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Lab Reg No.		V11/022679				
Sample Reference		.				
	Units					Method
Poly-unsaturated Fatty Acids						
Total Mono Trans Fatty Acids	%	0.7				VL289
Total Poly Trans Fatty Acids	%	4.2				VL289
P:M:S Ratio		1.8:0.8:1				VL289

SK Wahat

Dr. Nehar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sam Barone

Sam Barone, Chemist
Organics - Vic

Paul Adorno

Paul Adorno, Section Manager
Food Composition - Vic

4-Nov-2011

Lab Reg No.		V11/022679				
Sample Reference		.				
	Units					Method
Proximates						
Starch	g/100g	<0.1				BRIS6
Total Dietary Fibre	g/100g	2.6				

V11/022679

Fibre and Starch determined by Grain Growers, North Ryde NSW, NATA Accred. 66.
Grain Growers Job Reference: 01323

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

4-Nov-2011

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7. Lemon Myrtle

Product Name (commercial preference)	Lemon myrtle
Alternative names, synonyms, if any.	-
Botanical Name	<i>Backhousia citriodora</i>
Commentary on nomenclature	-
Producer/manufacturer:	Australian Rainforest Products
Sample location (origin/ production area)	Lismore district; orchard grown
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Leaf separated from twig, dried, hammer milled.
Sampling method:	Subsample from batch #110266
Date of harvest	22/9/2011
Sampling date:	17/10/2011
Date of sample despatch:	17/10/2011



REPORT OF ANALYSIS

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Report No. RN905999

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 20-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/022651	ARP Lemon	Lemon Myrtle Leaf- Dried and Ground

Lab Reg No.	Sample Reference	Units	V11/022651 ARP Lemon	Method
Trace Elements				
Sodium	mg/100g	33		VL247


Paul Adorno, Section Manager
Inorganics - Vic

21-MAR-2012

Lab Reg No.	Sample Reference	Units	V11/022651 ARP Lemon	Method
Proximates				
Fructose	g/100g	1.0		VL295
Glucose	g/100g	0.8		VL295
Sucrose	g/100g	< 0.2		VL295
Maltose	g/100g	< 0.2		VL295
Lactose	g/100g	< 0.2		VL295
Total Sugars	g/100g	1.8		VL295
Moisture	g/100g	9.1		VL298
Fat (Mojonnier extraction)	g/100g	1.8		VL302
Saturated Fat	g/100g	0.6		VL289
Protein (N x 6.25)	g/100g	8.3		VL299
Ash	g/100g	5.2		VL286
Carbohydrates	g/100g	20		VL412
Energy (kJ)	kJ/100g	990		VL412
Mono trans fats	g/100g	< 0.1		VL289
Mono-unsaturated fat	g/100g	0.2		VL289
Omega 3 fats	g/100g	0.5		VL289
Omega 6 fats	g/100g	0.3		VL289

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Lab Reg No.		V11/022651			
Sample Reference	Units	ARP Lemon			Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	0.8			VL289
Trans fats	g/100g	0.1			VL289
Saturated Fatty Acids					
C4:0 Butyric	%	< 0.1			VL289
C6:0 Caproic	%	< 0.1			VL289
C8:0 Caprylic	%	< 0.1			VL289
C10:0 Capric	%	< 0.1			VL289
C12:0 Lauric	%	1.2			VL289
C14:0 Myristic	%	1.0			VL289
C15:0 Pentadecanoic	%	7.8			VL289
C16:0 Palmitic	%	23.6			VL289
C17:0 Margaric	%	0.4			VL289
C18:0 Stearic	%	0.4			VL289
C20:0 Arachidic	%	< 0.1			VL289
C22:0 Behenic	%	< 0.1			VL289
C24:0 Lignoceric	%	< 0.1			VL289
Total Saturated	%	34.5			VL289
Mono-unsaturated Fatty Acids					
C14:1 Myristoleic	%	< 0.1			VL289
C16:1 Palmitoleic	%	< 0.1			VL289
C17:1 Heptadecenoic	%	< 0.1			VL289
C18:1 Oleic	%	10.0			VL289
C20:1 Eicosenic	%	0.2			VL289
C22:1 Docosenoic	%	< 0.1			VL289
C24:1 Nervonic	%	0.7			VL289
Total Mono-unsaturated	%	10.9			VL289
Poly-unsaturated Fatty Acids					
C18:2w6 Linoleic	%	18.0			VL289
C18:3w6 gamma-Linolenic	%	0.6			VL289
C18:3w3 alpha-Linolenic	%	24.7			VL289
C20:2w6 Eicosadienoic	%	0.8			VL289
C20:3w6 Eicosatrienoic	%	< 0.1			VL289
C20:3w3 Eicosatrienoic	%	0.4			VL289
C20:4w6 Arachidonic	%	< 0.1			VL289
C20:5w3 Eicosapentaenoic	%	2.3			VL289
C22:2w6 Docosadienoic	%	0.4			VL289
Omega 3 Fatty Acids	%	28.5			VL289
Omega 6 Fatty Acids	%	19.8			VL289
C22:4w6 Docosatetraenoic	%	< 0.1			VL289
C22:5w3 Docosapentaenoic	%	0.8			VL289
C22:6w3 Docosahexaenoic	%	0.3			VL289
Total Poly-unsaturated	%	48.3			VL289

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Lab Reg No.		V11/022651				
Sample Reference		ARP Lemon				
	Units					Method
Poly-unsaturated Fatty Acids						
Total Mono Trans Fatty Acids	%	3.5				VL289
Total Poly Trans Fatty Acids	%	2.8				VL289
P:M:S Ratio		1.4:0.3:1				VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sant Barone

Sant Barone, Chemist
Organics - Vic

21-MAR-2012

Lab Reg No.		V11/022651				
Sample Reference		ARP Lemon				
	Units					Method
Proximates						
Starch	g/100g	<0.1				BRIS6
Total Dietary Fibre	g/100g	55.8				

V11/022651

Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01328
Fibre determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01970

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

21-MAR-2012

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8. Olida

Product Name (commercial preference)	Olida: Dried, milled leaf
Alternative names, synonyms, if any.	Strawberry Gum, Forest Berry Herb
Botanical Name	Eucalyptus olida
Commentary on nomenclature	Olida is preferred as there has been some confusion regarding the references to berries in the alternatives. Some producers name the product simply by the botanical name, though this may be somewhat clumsy.
Producer/manufacturer:	Tarnuk Bushfoods
Sample location (origin/ production area)	Korumburra, Victoria
Clone, variety or selection, if any:	n/a
Batch preparation (post harvest)	Dried leaf, ground in hammer mill
Sampling method:	Subsample from commercial batch
Date of harvest	7/9/11
Sampling date:	19/9/11
Date of sample despatch:	10/10/11



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 12-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/027770	.	450gms Eucalyptus olida Milled 1mm Powdered Form

Lab Reg No.	Sample Reference	Units	V11/027770	Method
Trace Elements				
Sodium	mg/100g	160		VL247

Paul Adorno, Section Manager
Inorganics - Vic

22-FEB-2012

Lab Reg No.	Sample Reference	Units	V11/027770	Method
Proximates				
Fructose	g/100g	2.3		VL295
Glucose	g/100g	1.8		VL295
Sucrose	g/100g	<0.2		VL295
Maltose	g/100g	<0.2		VL295
Lactose	g/100g	<0.2		VL295
Total Sugars	g/100g	4.1		VL295
Moisture	g/100g	15.0		VL298
Fat (Mojonnier extraction)	g/100g	4.8		VL302
Saturated Fat	g/100g	1.0		VL289
Protein (N x 6.25)	g/100g	9.4		VL299
Ash	g/100g	2.8		VL286
Carbohydrates	g/100g	22		VL412
Energy (kJ)	kJ/100g	1080		VL412
Mono trans fats	g/100g	<0.1		VL289
Mono-unsaturated fat	g/100g	0.2		VL289
Omega 3 fats	g/100g	2.9		VL289

REPORT OF ANALYSIS

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Lab Reg No.		V11/027770				
Sample Reference		-				
	Units					Method
Proximates						
Omega 6 fats	g/100g	0.5				VL289
Poly trans fats	g/100g	< 0.1				VL289
Poly-unsaturated fat	g/100g	3.4				VL289
Trans fats	g/100g	< 0.1				VL289
Saturated Fatty Acids						
C4:0 Butyric	%	< 0.1				VL289
C6:0 Caproic	%	0.2				VL289
C8:0 Caprylic	%	0.3				VL289
C10:0 Capric	%	0.6				VL289
C12:0 Lauric	%	0.5				VL289
C14:0 Myristic	%	2.1				VL289
C15:0 Pentadecanoic	%	0.2				VL289
C16:0 Palmitic	%	14.7				VL289
C17:0 Margaric	%	0.3				VL289
C18:0 Stearic	%	1.2				VL289
C20:0 Arachidic	%	1.0				VL289
C22:0 Behenic	%	0.5				VL289
C24:0 Lignoceric	%	0.6				VL289
Total Saturated	%	22.3				VL289
Mono-unsaturated Fatty Acids						
C14:1 Myristoleic	%	0.1				VL289
C16:1 Palmitoleic	%	0.2				VL289
C17:1 Heptadecenoic	%	< 0.1				VL289
C18:1 Oleic	%	3.5				VL289
C20:1 Eicosenic	%	< 0.1				VL289
C22:1 Docosenoic	%	< 0.1				VL289
C24:1 Nervonic	%	< 0.1				VL289
Total Mono-unsaturated	%	4.0				VL289
Poly-unsaturated Fatty Acids						
C18:2w6 Linoleic	%	9.5				VL289
C18:3w6 gamma-Linolenic	%	< 0.1				VL289
C18:3w3 alpha-Linolenic	%	59.9				VL289
C20:2w6 Eicosadienoic	%	< 0.1				VL289
C20:3w6 Eicosatrienoic	%	1.1				VL289
C20:3w3 Eicosatrienoic	%	< 0.1				VL289
C20:4w6 Arachidonic	%	0.4				VL289
C20:5w3 Eicosapentaenoic	%	0.1				VL289
C22:2w6 Docosadienoic	%	< 0.1				VL289
Omega 3 Fatty Acids	%	62.2				VL289
Omega 6 Fatty Acids	%	11.1				VL289
C22:4w6 Docosatetraenoic	%	< 0.1				VL289
C22:5w3 Docosapentaenoic	%	2.0				VL289
C22:6w3 Docosahexaenoic	%	< 0.1				VL289

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Lab Reg No.	V11/027770				
Sample Reference	Units				Method
Poly-unsaturated Fatty Acids					
Total Poly-unsaturated	%	73.3			VL289
Total Mono Trans Fatty Acids	%	<0.1			VL289
Total Poly Trans Fatty Acids	%	0.5			VL289
P:M:S Ratio		3.3:0.2:1			VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sant Barone

Sant Barone, Chemist
Organics - Vic

22-FEB-2012

Lab Reg No.	V11/027770				
Sample Reference	Units				Method
Proximates					
Starch	g/100g	0.25			BRIS6
Total Dietary Fibre	g/100g	46.5			

V11/027770

Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01281

Fibre determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01753

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

22-FEB-2012

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9. Sea Parsley

Product Name (commercial preference)	Sea Parsley- Fresh Leaf
Alternative names, synonyms, if any.	-
Botanical Name	<i>Apium prostratum</i>
Commentary on nomenclature	
Producer/manufacturer:	Outback Pride
Sample location (origin/ production area)	
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Chill pack
Sampling method:	Subsample ex commercial pack
Date of harvest	19/10/2011
Sampling date:	19 October 2011
Date of sample despatch:	20 October 2011



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Report No. RN901233

Client	: AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No.	: AUSN22/111012
Attention	: Chris Read	Quote No.	: QT-01792
Project Name	:	Order No.	: ANFILNPC1
Your Client Services Manager	: Tim Stolbaus	Date Sampled	: 19-OCT-2011
		Date Received	: 24-OCT-2011
		Sampled By	: CLIENT
		Phone	: 1031 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/028076	.	Sea Parsley (Apium Prostratum)

Lab Reg No.	Sample Reference	Units	V11/028076	Method
Trace Elements				
Sodium	mg/100g	290		VL247


Paul Adomo, Section Manager
Inorganics - Vic

22-FEB-2012

Lab Reg No.	Sample Reference	Units	V11/028076	Method
Proximates				
Fructose	g/100g	0.3		VL295
Glucose	g/100g	1.1		VL295
Sucrose	g/100g	< 0.2		VL295
Maltose	g/100g	< 0.2		VL295
Lactose	g/100g	< 0.2		VL295
Total Sugars	g/100g	1.4		VL295
Moisture	g/100g	89.6		VL298
Fat (Mojonnier extraction)	g/100g	0.3		VL302
Saturated Fat	g/100g	< 0.1		VL289
Protein (N x 6.25)	g/100g	2.5		VL299
Ash	g/100g	2.0		VL286
Carbohydrates	g/100g	2		VL412
Energy (kJ)	kJ/100g	120		VL412
Mono trans fats	g/100g	< 0.1		VL289
Mono-unsaturated fat	g/100g	< 0.1		VL289
Omega 3 fats	g/100g	< 0.1		VL289
Omega 6 fats	g/100g	< 0.1		VL289

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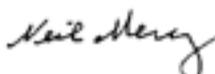
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Lab Reg No.	V11/028076				
Sample Reference	Units				Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	< 0.1			VL289
Trans fats	g/100g	< 0.1			VL289

V11/028076



Dr. Nahar Syeda, Analyst
Food Composition - Vic



Neil Menz, Analyst
Food Composition - Vic



Samanthya Duong, Analyst
Organic - Vic



Paul Adomo, Section Manager
Food Composition - Vic

22-FEB-2012

Lab Reg No.	V11/028076				
Sample Reference	Units				Method
Starch	g/100g	0.1			BRIS6
Total Dietary Fibre	g/100g	3.8			

V11/028076

Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.

Grain Growers Job Reference: 01338

Fibre determined by Grain Growers, North Ryde NSW. NATA Accred. 66.

Grain Growers Job Reference: 01720



Tim Redden
Laboratory Services Unit - Vic

22-FEB-2012

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10. Tasmania Pepperberry

Product Name (commercial preference)	Tasmania pepperberry
Alternative names, synonyms, if any.	Mountain Pepperberry, Pepperberry, Native pepper berry
Botanical Name	Tasmania lanceolata
Commentary on nomenclature	Prefer to include 'berry' in name to distinguish from the leaf product.
Producer/manufacturer:	Diemen Pepper Products
Sample location (origin/ production area)	NW Tasmania (Parrawe district)
Clone, variety or selection, if any:	Consolidated wild crafted
Batch preparation (post harvest)	Berries dried (to 45°C) and cleaned.
Sampling method:	Subsample from Batch 051200
Date of harvest	April 2011
Sampling date:	October 2011
Date of sample despatch:	12/10/2011



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Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 13-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/027916	.	Dried Whole Pepperberries

Lab Reg No.	Sample Reference	Units	V11/027916	Method
			.	
Trace Elements				
Sodium	mg/100g	39		VL247

Paul Adorno, Section Manager
Inorganics - Vic

22-FEB-2012

Lab Reg No.	Sample Reference	Units	V11/027916	Method
			.	
Proximates				
Fructose	g/100g	12		VL295
Glucose	g/100g	12		VL295
Sucrose	g/100g	< 0.2		VL295
Maltose	g/100g	< 0.2		VL295
Lactose	g/100g	< 0.2		VL295
Total Sugars	g/100g	24		VL295
Moisture	g/100g	10.4		VL298
Fat (Mojonnier extraction)	g/100g	6.7		VL302
Saturated Fat	g/100g	0.7		VL289
Protein (N x 6.25)	g/100g	4.8		VL299
Ash	g/100g	2.7		VL286
Carbohydrates	g/100g	34		VL412
Energy (kJ)	kJ/100g	1240		VL412
Mono trans fats	g/100g	< 0.1		VL289
Mono-unsaturated fat	g/100g	0.7		VL289
Omega 3 fats	g/100g	< 0.1		VL289
Omega 6 fats	g/100g	4.9		VL289

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Lab Reg No.		V11/027916			
Sample Reference	Units				Method
Proximates					
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	5.0			VL289
Trans fats	g/100g	< 0.1			VL289
Saturated Fatty Acids					
C4:0 Butyric	%	< 0.1			VL289
C6:0 Caproic	%	< 0.1			VL289
C8:0 Caprylic	%	< 0.1			VL289
C10:0 Capric	%	< 0.1			VL289
C12:0 Lauric	%	0.1			VL289
C14:0 Myristic	%	0.1			VL289
C15:0 Pentadecanoic	%	< 0.1			VL289
C16:0 Palmitic	%	7.8			VL289
C17:0 Margaric	%	0.1			VL289
C18:0 Stearic	%	2.5			VL289
C20:0 Arachidic	%	0.3			VL289
C22:0 Behenic	%	0.2			VL289
C24:0 Lignoceric	%	< 0.1			VL289
Total Saturated	%	11.4			VL289
Mono-unsaturated Fatty Acids					
C14:1 Myristoleic	%	< 0.1			VL289
C16:1 Palmitoleic	%	< 0.1			VL289
C17:1 Heptadecenoic	%	< 0.1			VL289
C18:1 Oleic	%	10.3			VL289
C20:1 Eicosenic	%	0.2			VL289
C22:1 Docosenoic	%	< 0.1			VL289
C24:1 Nervonic	%	0.1			VL289
Total Mono-unsaturated	%	10.6			VL289
Poly-unsaturated Fatty Acids					
C18:2w6 Linoleic	%	75.8			VL289
C18:3w6 gamma-Linolenic	%	0.1			VL289
C18:3w3 alpha-Linolenic	%	0.6			VL289
C20:2w6 Eicosadienoic	%	0.2			VL289
C20:3w6 Eicosatrienoic	%	< 0.1			VL289
C20:3w3 Eicosatrienoic	%	< 0.1			VL289
C20:4w6 Arachidonic	%	0.1			VL289
C20:5w3 Eicosapentaenoic	%	< 0.1			VL289
C22:2w6 Docosadienoic	%	< 0.1			VL289
Omega 3 Fatty Acids	%	0.9			VL289
Omega 6 Fatty Acids	%	76.4			VL289
C22:4w6 Docosatetraenoic	%	0.3			VL289
C22:5w3 Docosapentaenoic	%	0.3			VL289
C22:6w3 Docosahexaenoic	%	< 0.1			VL289
Total Poly-unsaturated	%	77.4			VL289

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Lab Reg No.	V11/027916				
Sample Reference	Units				Method
Poly-unsaturated Fatty Acids					
Total Mono Trans Fatty Acids	%	<0.1			VL289
Total Poly Trans Fatty Acids	%	0.7			VL289
P:M:S Ratio		6.8:0.9:1			VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sant Barone

Sant Barone, Chemist
Organics - Vic

22-FEB-2012

Lab Reg No.	V11/027916				
Sample Reference	Units				Method
Proximates					
Starch	g/100g	<0.1			BRIS6
Total Dietary Fibre	g/100g	41.9			

V11/027916

Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01302
Fibre determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01753

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

22-FEB-2012

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11. Tasmania Pepperleaf

Product Name (commercial preference)	Tasmania pepperleaf
Alternative names, synonyms, if any.	-Mountain pepper, mountain pepper leaf, native pepper leaf.
Botanical Name	Tasmania lanceolata
Commentary on nomenclature	-
Producer/manufacturer:	Diemen Pepper Products
Sample location (origin/ production area)	NW Tasmania: Parrawe district
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Leaf is dried, stripped from twigs, milled to order.
Sampling method:	Subsample ex commercial batch 100438
Date of harvest	June 2011
Sampling date:	October 2011
Date of sample despatch:	12 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBRIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 13-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/027915	-	Dried Milled Pepperleaf

Lab Reg No.	Sample Reference	Units	V11/027915	Method
Trace Elements				
Sodium	mp/100g	77		VL247


Paul Adorno, Section Manager
Inorganics - Vic

22-FEB-2012

Lab Reg No.	Sample Reference	Units	V11/027915	Method
Proximates				
Fructose	g/100g	1.2		VL295
Glucose	g/100g	1.3		VL295
Sucrose	g/100g	< 0.2		VL295
Maltose	g/100g	< 0.2		VL295
Lactose	g/100g	< 0.2		VL295
Total Sugars	g/100g	2.5		VL295
Moisture	g/100g	10.3		VL298
Fat (Mojonnier extraction)	g/100g	4.5		VL302
Saturated Fat	g/100g	1.7		VL289
Protein (N x 6.25)	g/100g	7.4		VL299
Ash	g/100g	3.7		VL286
Carbohydrates	g/100g	23		VL412
Energy (kJ)	kJ/100g	1090		VL412
Mono trans fats	g/100g	0.1		VL289
Mono-unsaturated fat	g/100g	0.4		VL289
Omega 3 fats	g/100g	0.6		VL289
Omega 6 fats	g/100g	1.2		VL289

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Lab Reg No.		V11/027915			
Sample Reference	Units				Method
Proximates					
Poly trans fats	g/100g	0.3			VL289
Poly-unsaturated fat	g/100g	1.8			VL289
Trans fats	g/100g	0.5			VL289
Saturated Fatty Acids					
C4:0 Butyric	%	0.3			VL289
C6:0 Caproic	%	1.1			VL289
C8:0 Caprylic	%	0.9			VL289
C10:0 Capric	%	2.5			VL289
C12:0 Lauric	%	5.1			VL289
C14:0 Myristic	%	1.9			VL289
C15:0 Pentadecanoic	%	<0.1			VL289
C16:0 Palmitic	%	17.4			VL289
C17:0 Margeric	%	1.3			VL289
C18:0 Stearic	%	3.8			VL289
C20:0 Arachidic	%	1.4			VL289
C22:0 Behenic	%	1.0			VL289
C24:0 Lignoceric	%	1.6			VL289
Total Saturated	%	38.4			VL289
Mono-unsaturated Fatty Acids					
C14:1 Myristoleic	%	0.6			VL289
C16:1 Palmitoleic	%	1.1			VL289
C17:1 Heptadecenoic	%	<0.1			VL289
C18:1 Oleic	%	7.4			VL289
C20:1 Eicosenic	%	0.2			VL289
C22:1 Docosenoic	%	<0.1			VL289
C24:1 Nervonic	%	<0.1			VL289
Total Mono-unsaturated	%	9.4			VL289
Poly-unsaturated Fatty Acids					
C18:2w6 Linoleic	%	24.0			VL289
C18:3w6 gamma-Linolenic	%	0.6			VL289
C18:3w3 alpha-Linolenic	%	11.6			VL289
C20:2w6 Eicosadienoic	%	1.3			VL289
C20:3w6 Eicosatrienoic	%	<0.1			VL289
C20:3w3 Eicosatrienoic	%	0.6			VL289
C20:4w6 Arachidonic	%	<0.1			VL289
C20:5w3 Eicosapentaenoic	%	0.1			VL289
C22:2w6 Docosadienoic	%	0.4			VL289
Omega 3 Fatty Acids	%	14.1			VL289
Omega 6 Fatty Acids	%	27.5			VL289
C22:4w6 Docosatetraenoic	%	1.3			VL289
C22:5w3 Docosapentaenoic	%	1.8			VL289
C22:6w3 Docosahexaenoic	%	<0.1			VL289
Total Poly-unsaturated	%	41.6			VL289

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Lab Reg No.	V11/027915				Method
Sample Reference	-				Method
Units					Method
Poly-unsaturated Fatty Acids					
Total Mono Trans Fatty Acids	%	2.9			VL289
Total Poly Trans Fatty Acids	%	7.7			VL289
P:M:S Ratio		1.1:0.2:1			VL289

SK Nahar

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Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sant Barone

Sant Barone, Chemist
Organics - Vic

22-FEB-2012

Lab Reg No.	V11/027915				Method
Sample Reference	-				Method
Units					Method
Proximates					
Starch	g/100g	0.2			BRIS6
Total Dietary Fibre	g/100g	51.4			

V11/027915

Starch determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01302
Fibre determined by Grain Growers, North Ryde NSW. NATA Accred. 66.
Grain Growers Job Reference: 01753

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

22-FEB-2012

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National Measurement Institute

12. Rivermint

Product Name (commercial preference)	River mint
Alternative names, synonyms, if any.	Native Mint
Botanical Name	<i>Mentha australis</i>
Commentary on nomenclature	
Producer/manufacturer:	Outback Pride
Sample location (origin/ production area)	
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Chill pack
Sampling method:	Subsample ex commercial pack
Date of harvest	19/10/2011
Sampling date:	19 October 2011
Date of sample despatch:	20 October 2011



REPORT OF ANALYSIS

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : 19-OCT-2011 Date Received : 24-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/028078	.	River Mint (Metha australis) Dried Leaf

Lab Reg No.	Sample Reference	Units	V11/028078	Method
Trace Elements				
Sodium		mg/100g	96	VL247

Paul Adorno, Section Manager
Inorganics - Vic

22-FEB-2012

Lab Reg No.	Sample Reference	Units	V11/028078	Method
Proximates				
Fructose		g/100g	0.3	VL295
Glucose		g/100g	0.2	VL295
Sucrose		g/100g	< 0.2	VL295
Maltose		g/100g	< 0.2	VL295
Lactose		g/100g	< 0.2	VL295
Total Sugars		g/100g	< 1	VL295
Moisture		g/100g	84.1	VL298
Fat (Mojonnier extraction)		g/100g	< 0.2	VL302
Saturated Fat		g/100g	< 0.1	VL289
Protein (N x 6.25)		g/100g	4.1	VL299
Ash		g/100g	2.1	VL286
Carbohydrates		g/100g	3	VL412
Energy (kJ)		kJ/100g	170	VL412
Mono trans fats		g/100g	< 0.1	VL289
Mono-unsaturated fat		g/100g	< 0.1	VL289
Omega 3 fats		g/100g	< 0.1	VL289
Omega 6 fats		g/100g	< 0.1	VL289

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Lab Reg No.		V11/028078				
Sample Reference		-				
	Units					Method
Proximates						
Poly trans fats	g/100g	< 0.1				VL289
Poly-unsaturated fat	g/100g	< 0.1				VL289
Trans fats	g/100g	< 0.1				VL289

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Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Samantha Duong

Samantha Duong, Analyst
Organics - Vic

Paul Adorno

Paul Adorno, Section Manager
Food Composition - Vic

22-FEB-2012

Lab Reg No.		V11/028078				
Sample Reference		-				
	Units					Method
Starch	g/100g	0.1				BRIS6
Total Dietary Fibre	g/100g	6.3				

V11/028078

Starch determined by Grain Growers, North Ryde NSW, NATA Accred. 66.
Grain Growers Job Reference: 01338

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

22-FEB-2012

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13. Saltbush

Product Name (commercial preference)	Saltbush:
Alternative names, synonyms, if any.	
Botanical Name	<i>Atriplex nummularia</i>
Commentary on nomenclature	
Producer/manufacturer:	Outback Pride
Sample location (origin/ production area)	
Clone, variety or selection, if any:	N/A
Batch preparation (post harvest)	Chill pack
Sampling method:	Subsample ex commercial pack
Date of harvest	19/10/2011
Sampling date:	19 October 2011
Date of sample despatch:	20 October 2011



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Report No. RN901234

Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : 19-OCT-2011 Date Received : 24-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/028077	.	Saltbush (Atriplex nummularia) dried milled leaf

Lab Reg No.	Sample Reference	Units	V11/028077	Method
Trace Elements				
Sodium	mg/100g	630		VL247


Paul Adorno, Section Manager
Inorganics - Vic

22-FEB-2012

Lab Reg No.	Sample Reference	Units	V11/028077	Method
Proximates				
Fructose	g/100g	<0.2		VL295
Glucose	g/100g	<0.2		VL295
Sucrose	g/100g	<0.2		VL295
Maltose	g/100g	<0.2		VL295
Lactose	g/100g	<0.2		VL295
Total Sugars	g/100g	<1		VL295
Moisture	g/100g	87.2		VL298
Fat (Mojonnier extraction)	g/100g	0.3		VL302
Saturated Fat	g/100g	<0.1		VL289
Protein (N x 6.25)	g/100g	3.6		VL299
Ash	g/100g	3.3		VL286
Carbohydrates	g/100g	1		VL412
Energy (kJ)	kJ/100g	130		VL412
Mono trans fats	g/100g	<0.1		VL289
Mono-unsaturated fat	g/100g	<0.1		VL289
Omega 3 fats	g/100g	<0.1		VL289

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Lab Reg No.	V11/028077				
Sample Reference	-				
	Units				Method
Proximates					
Omega 6 fats	g/100g	< 0.1			VL289
Poly trans fats	g/100g	< 0.1			VL289
Poly-unsaturated fat	g/100g	< 0.1			VL289
Trans fats	g/100g	< 0.1			VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Samartha Duong

Samartha Duong, Analyst
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Paul Adorno

Paul Adorno, Section Manager
Food Composition - Vic

22-FEB-2012

Lab Reg No.	V11/028077				
Sample Reference	-				
	Units				Method
Starch	g/100g	0.1			BRIS6
Total Dietary Fibre	g/100g	4.6			

V11/028077

Starch determined by Grain Growers, North Ryde NSW, NATA Accred. 66.
Grain Growers Job Reference: 01338

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

22-FEB-2012

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14. Satinash

Product Name (commercial preference)	Satinash
Alternative names, synonyms, if any.	Rain cherry, Small leaf Lilli Pilli
Botanical Name	Syzygium fibrosum
Commentary on nomenclature	'Rain cherry' is the marketing 'brand' used by this producer.
Producer/manufacturer:	Galeru Pty Ltd
Sample location (origin/ production area)	Cooroy, Qld
Clone, variety or selection, if any:	-
Batch preparation (post harvest)	Whole frozen fruit thawed under refrigeration; thawed fruit processed by brush-finisher to remove seed; fruit pulp then packaged and frozen
Sampling method:	1150kg of whole satinash fruit was processed (de-seeded) in a single batch on 15 Mar 2010; the sample was taken from a random carton of this product
Date of harvest	3 Jan 2008
Sampling date:	11 Nov 2011
Date of sample despatch:	11 Nov 2011



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Client : AUSTRALIAN NATIVE FOOD INDUSTRY LTD PO BOX 194 WOODBIDGE TAS 7162	Job No. : AUSN22/111012 Quote No. : QT-01792 Order No. : ANFILNPC1 Date Sampled : Date Received : 12-OCT-2011 Sampled By : CLIENT
Attention : Chris Read Project Name : Your Client Services Manager : Tim Stobaus	Phone : (03) 9644 4849

Lab Reg No.	Sample Ref	Sample Description
V11/027822	.	Satinash (S.Fibrosum) Fruit Pulp

Lab Reg No.	Sample Reference	Units	V11/027822	Method
Trace Elements				
Sodium		mg/100g	15	VL247

Paul Adorno, Section Manager
Inorganics - Vic

28-OCT-2011

Lab Reg No.	Sample Reference	Units	V11/027822	Method
Proximates				
Fructose		g/100g	0.9	VL295
Glucose		g/100g	0.5	VL295
Sucrose		g/100g	< 0.2	VL295
Maltose		g/100g	< 0.2	VL295
Lactose		g/100g	< 0.2	VL295
Total Sugars		g/100g	1.4	VL295
Moisture		g/100g	93.8	VL298
Fat (Mojonnier extraction)		g/100g	< 0.2	VL302
Saturated Fat		g/100g	< 0.1	VL289
Protein (N x 6.25)		g/100g	0.4	VL299
Ash		g/100g	0.3	VL286
Carbohydrates		g/100g	4	VL412
Energy (kJ)		kJ/100g	90	VL412
Mono trans fats		g/100g	< 0.1	VL289
Mono-unsaturated fat		g/100g	< 0.1	VL289
Omega 3 fats		g/100g	< 0.1	VL289
Omega 6 fats		g/100g	< 0.1	VL289

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Lab Reg No.		V11/027822				
Sample Reference		.				
	Units					Method
Proximates						
Poly trans fats	g/100g	< 0.1				VL289
Poly-unsaturated fat	g/100g	< 0.1				VL289
Trans fats	g/100g	< 0.1				VL289

SK Nahar

Dr. Nahar Syeda, Analyst
Food Composition - Vic

Neil Menz

Neil Menz, Analyst
Food Composition - Vic

Sam Baroni

Sam Baroni, Chemist
Organics - Vic

28-OCT-2011

Lab Reg No.		V11/027822				
Sample Reference		.				
	Units					Method
Starch	g/100g	0.24				BR156
Total Dietary Fibre	g/100g	1.4				

V11/027822
Fibre and Starch determined by Grain Growers, North Ryde NSW, NATA Accred. 66.
Grain Growers Job Reference: 01281

Tim Reddan

Tim Reddan
Laboratory Services Unit - Vic

28-OCT-2011

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APPENDIX 2: Analytical Methods

1. Trace Elements VL 247 Vers. 9.0

Analysis Description	Determination of trace elements in food and biota by inductively coupled plasma-mass spectrometry (ICP-MS) and inductively coupled atomic emission spectrometry (ICP-OES).
Matrix / Matrices	Food and biota
Reference Method(s)	1. USEPA Method 6010B & 6020 2. NMI NSW Method 2.46
Limit of Reporting (LOR)	0.01-0.5 mg/kg for most metals 0.2-2 mg/kg for sodium, potassium, sulfur, phosphorous, iron, calcium, magnesium
NATA Accredited	Yes
Preparation & procedure	Sample is homogenised and a sub-sample (0.2-0.5g) is digested with re-distilled nitric acid on a DigiPrep block for one hour until vigorous reaction is complete. Samples are then transferred to a Milestone microwave to be further digested. After making up to appropriate volume with Milli-Q (high purity) water, the digest is analysed for trace elements using ICP-MS and / or ICP-OES.
Comments, limitations or known interferences	In ICP-MS some elements are prone to interferences from molecular ions, doubly charged ions and isotopes of similar mass. The analysis of matrices containing high concentrations of salts or organic compounds may not be possible for some elements. In some cases the ICP-OES may be an alternative. Spectral interferences are common in ICP-OES due to many excitation lines generated by the plasma.
Equipment used	ICP-MS: Agilent 7500CE ICP-OES: Optima 4300DV
QA Protocols per batch	One blank every 20 samples with a minimum of 2 blanks per batch One sample reference material (SRM) every batch (if available) One sample spike and one blank spike every 20 samples One sample every 10 samples to be analysed in duplicate
Mass of Sample required	10g
Comments	

2. Determination of Ash: VL 286 Vers. 5.1

Analysis Description	Determination of ash in food.
Matrix / Matrices	Processed and unprocessed food and beverages.
Reference Method(s)	AOAC 16 th Edn. 1995, 923.03 and 900.02
Limit of Reporting (LOR)	0.1g/100g or 0.1g/100ml
NATA Accredited	Yes
Preparation & procedure	Sample must be homogenous. Weigh an appropriate weight of sample into a prepared weighed dish, beaker or crucible. Disperse sample on bottom of container, remove excess moisture on a water bath. Transfer container to muffle furnace and slowly heat to 525°C ± 25°C until all organic matter is destroyed. It may be necessary to dissolve salts in water to allow destruction of occluded carbon particles. Weigh container and ash. Calculate ash content.
Comments, limitations or known interferences	Samples high in sugar swell when heated and may exude from container. If sample ignites particulate matter may be lost with smoke.
Equipment used	Muffle furnace, weighing apparatus. Platinum crucibles are the most suitable containers for the analysis.
QA Protocols per batch	One control (flour sample) per batch At least one duplicate per batch
Mass of Sample required	10 grams
Comments	If ashing is incomplete high results can be obtained. Sulphated ash can be obtained by adding a few drops of sulphuric acid prior to ashing.

3. Fatty Acids VL 289 Vers. 7.0

Analysis Description	Fatty Acid Profile – including trans fatty acids
Matrix / Matrices	Foods
Reference Method(s)	Bligh & Dwyer, “A Rapid Method of Total Lipid Extraction and Purification”, Can.J. Biochem. Physiol., 37, 911-917 Badings & Dejong (1983). J. Chrom., 279, 493-506. McCance & Widdowson (1991). The Composition of Foods. 5 th Ed, p 9.
Limit of Reporting (LOR)	FAME's 0.1g/100g
NATA Accredited	Yes
Preparation & procedure	<p>Preparation: The sample is homogenised and a sub sample taken (usually 1 to 10g, depending on sample type). Fat is extracted from the sample using either Chloroform/Methanol or Petroleum ether/iso-propyl alcohol. The extract is evaporated under nitrogen. A minimum extracted mass of 0.2g fat is required. The extracted fat is esterified using a methanolic sodium methoxide solution and treatment with sulphuric acid in methanol. The solution is neutralised and re-extracted using n-hexane. The hexane layer is removed, dried using anhydrous sodium sulphate and made to volume, with hexane.</p> <p>Determination: The relative proportion of each fatty acid methyl ester in the prepared sample is determined using gas chromatography with flame ionisation detection. Identification of the individual fatty acids is made by retention time against a standard of known fatty acid methyl esters including both cis and trans isomers. The amount of Conjugated Linoleic Acid (CLA) can be also determined from the FAME's chromatogram.</p> <p>Calculation: Integration and calculation of proportional methyl ester concentrations is made using instrument software. CLA is quantitated using a six point external standard calibration. CLA is usually expressed as mg CLA/g fat.</p>
Comments, limitations or known interferences	<p>The results obtained are proportional only, as a percentage (or g/100g) of the FAME's present in the fat extracted from the sample. If a FAME is required to be determined as a proportion of the total sample then a total fat determination of the sample is also required. For most foods FAMES comprise over 95% of the total fat determined using standard mojonier or soxhlet fat methods.</p> <p>The FAMES reported range from C4 (Butyric acid) to C24:1 chain lengths.</p> <p>Trans fatty acids are also determined using this method.</p>
Equipment used	<p>Vials and other glassware.</p> <p>Balance, Dionex ASE 200 and Dionex SE 500 Nitrogen gas evaporation manifold</p> <p>Gas Chromatograph equipped with a Flame Ionisation Detector.</p> <p>Software for interpretation/ calculation of results.</p>
QA Protocols per batch	<p>1 control plant oil and 1 control fat are run with each batch.</p> <p>Minimum of 1 duplicate analysis per batch – maximum batch size; 19 samples.</p>
Mass of Sample required	10g
Comments	

4. Common Sugars: VL 295 Vers. 7.0

Analysis Description	Determination of common Sugars in Foods
Matrix / Matrices	Foods
Reference Method(s)	AOAC 13 th Ed. 31.138-31.142
Limit of Reporting (LOR)	0.2 g/100g with refractive index detector. 0.05 g/100g with ELSD detector.
NATA Accredited	Yes
Preparation & procedure	<p>Preparation: Sample is homogenised and a sub sample is accurately weighed. Sugars are extracted with 25 ml water at 60°C for 30 minutes. The extract is clarified with 25 ml acetonitrile and filtered through a 0.45µm filter into a 2ml vial, suitable for HPLC.</p> <p>Determination for common sugars: Filtered solution is analysed by HPLC using amino column with an acetonitrile/water mobile phase containing salt and refractive index detection. Quantitation is made against a standard solution containing known amounts of fructose, glucose, sucrose, maltose and lactose.</p> <p>Determination for low level sugars: Filtered solution is analysed by HPLC using carbohydrate ES column with an acetonitrile/water mobile phase and evaporative light scattering detector (ELSD). Quantitation is made against a standard solution containing known amounts of fructose, glucose, sucrose, maltose and lactose.</p> <p>Calculation: Result calculation is performed by HPLC software and a report generated.</p>
Comments, limitations or known interferences	<p>Sorbitol, galactose and other sugar alcohols may interfere with glucose or other sugars. When this occurs the glucose is determined using different mobile phase or separately using a Bio-Rad HPX column.</p> <p>The method uncertainty is relatively high at levels approaching the Limit of Reporting (0.2g/100g).</p>
Equipment used	<p>Flasks and glassware Balance Blender HPLC with RI or ELSD Detection and appropriate column(s) Software to perform integration and calculation of results</p>
QA Protocols per batch	<p>1 duplicate each batch (up to 15 samples usually) A standard is run every 5 samples A control reference is run each batch A recovery test in every batch</p>
Mass of Sample required	15 g per sample, however more sample would be required for QA.

5. Moisture: VL 298 Vers. 6.2

Analysis Description	Moisture / Total Solids
Matrix / Matrices	Food
Reference Method(s)	AOAC 16 th Ed. 934.06, 964.22, AS2300.1.1
Limit of Reporting (LOR)	0.2g/100g
NATA Accredited	Yes
Preparation & procedure	<p>Samples are homogenised.</p> <p>Moisture determination is made, according to sample matrix type, using either, sand and vacuum drying (Method A) or no sand and conventional drying (Method B).</p> <p>Method A (Using Sand):</p> <p>A moisture dish with sand, lid and glass rod is oven dried at 102°C and cooled before all dried components are weighed together to the nearest 0.1mg.</p> <p>2 to 5 gram of sample is weighed, to nearest 0.1mg, into the moisture dish. Water is added to the dish to aid mixing of the sample and sand. The moisture dish is placed on a steam bath until visible dryness of the sand/sample mix is achieved.</p> <p>The dish and components are placed in a vacuum oven and dried under vacuum (approx. 5kpa) at between 70 and 100°C, depending on sugar content of the sample. Drying time is a minimum of 4 hours depending on the sample matrix. After the required initial drying period the moisture dish and components are removed, cooled, re-weighed and returned for a further 1 hour drying. The weighing and drying process is repeated until constant weight is obtained.</p> <p>Calculation (Method A):</p> <p>Subtract the mass of the dish (plus components) from the mass of dried sample and dish (plus components). Divide the figure obtained by the sample mass and multiply by 100 to obtain a result as % moisture or g/100g.</p> <p>Method B (Without Sand):</p> <p>A moisture dish and lid is oven at 102°C dried and cooled. The dried components are weighed together to the nearest 0.1mg.</p> <p>A portion of sample (2 to 5 grams) is weighed, to nearest 0.1mg, into the dish.</p> <p>The sample in the dish is then placed in a conventional oven at 102°C for a minimum of 4 hours depending on the sample matrix. The dish and lid are then removed, cooled, re-weighed and returned for a further 1 hour drying. The weighing and drying process is repeated until a constant weight is obtained.</p> <p>Calculation (Method B):</p> <p>Subtract the mass of the dish (plus lid) from the mass of dried sample and dish (plus lid). Divide the figure obtained by the sample mass and multiply by 100 to obtain a result as % moisture or g/100g.</p>
Comments, limitations or known interferences	<p>These are internationally recognised techniques providing consistency and comparability with results obtained by laboratories worldwide. It is recognised that these techniques do not necessarily provide a true reflection of the total moisture contained in a sample.</p> <p>No real interferences in food samples.</p>

6. Fat by Mojonnier: VL 302 Vers. 7.0

Analysis Description	Fat Determination in non-dairy samples by Mojonnier
Matrix / Matrices	Foods
Reference Method(s)	AOAC 16th Edition 954.02,948.15,922.08
Limit of Reporting (LOR)	0.2g/ 100g
NATA Accredited	Yes
Preparation & procedure	<p>Preparation & Procedure:</p> <p>Samples are homogenised and a sub sample (approx. 2g) is accurately weighed into a beaker.</p> <p>10ml of approx. 10% hydrochloric acid is added and the mixture is heated at 80 <input type="checkbox"/>C</p> <p>The mixture is cooled and transferred quantitatively to a Mojonnier tube. 10ml of ethanol is added and the fat is extracted by shaking for 1 minute with 25ml of diethyl ether and a further minute with each of 25ml of petroleum ether and 50ml petroleum and diethyl ether mix (The petroleum and diethyl ether mix extract is conducted twice). After each solvent addition, and subsequent shaking, the organic layer is decanted from the Mojonnier tube into a pre-weighed glass dish. Once all extractions are complete the organic extract in the glass dish is evaporated.</p> <p>The dish is then dried in an oven at 102 <input type="checkbox"/> achieved.</p> <p>Calculation: % Fat = $\frac{\text{Weight of dish} - \text{Weight of dish X 100}}{\text{Weight of sample}}$</p>
Comments, limitations or known interferences	If hydrolysis is incomplete then a full recovery may not be obtained. Foods high in sugar should be pretreated to remove sugar prior to hydrolysis.
Equipment used	Convection oven calibrated at 102 <input type="checkbox"/> C. Analytical balance capable of weighing to 0.0001 gram Mojonnier tubes Glass dishes 10 gram of sample required.
QA Protocols per batch	1 Duplicate per batch, maximum batch size is 10 samples.
Mass of Sample required	10g per sample, however more samples would be required for QA.

Nutritional Data for Australian Native Foods

By Chris Read

Pub. No. 12/O99

This report details the analysis of a key group of 14 native food species for their nutritional properties, in particular those which are reported in the nutritional panels found on most manufactured products.

Through liaison with Food Standards Australia and New Zealand (FSANZ), this data has been incorporated into the database employed by the online calculator which is used by manufacturers to prepare these panels for their labelling.

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