

**Berryquest Combined
Blueberry/Strawberry Industry
Conference 2011**

Phillip Wilk
Australian Blueberry Growers Association Inc

Project Number: BB11700

BB11700

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Blueberry

Strawberry

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Final report

BB11700

BerryQuest combined blueberry /strawberry industry conference 2011

Milestone 190

Due date 30th March 2012



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Project title: BerryQuest combined blueberry/ strawberry industry conference 2011

HAL project No.: BB11700

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Purpose of this report:

This report covers the planning, preparation and running for project BB11700 BerryQuest combined blueberry/ strawberry industry conference and is the final milestone 190 for this project which ran from 19th to 21st October 2011.

Date of report 30th March 2012

Acknowledgements:

We acknowledge the support given by HAL, the Australian Blueberry Growers Association and QLD strawberries. I would also like to thank office staff at NSW Department of Primary Industries at Wollongbar and Mountain Blue Orchards for their invaluable support in printing and assembling the conference booklets.

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Media Summary

The Australian blueberry industry has traditionally held BerryQuest conferences every 12 months to update its members on technological changes, innovation and government policy variations that may affect their businesses.

The conferences have in the past been jointly run with the Rubus (raspberry) industry due to its many similarities in production and marketing.

The recent BerryQuest combined blueberry and strawberry industry conference 2011 was held from the 19th to 21st October 2011 at Caloundra Queensland in an attempt to attract other types of berry growers, mainly strawberries and gain real value from our key note speakers.

The conference which consisted of one day of presentations a pre conference tour of the Brisbane wholesale markets and a major chain store distribution centre and a post conference field day focussing mainly on strawberry production in poly tunnels and associated production equipment. The conference attracted approximately 120 attendees over three days.

The conference provided key note speakers the opportunity to emphasize the privileged position of the berry industries world wide due to their well documented, evidenced based nutraceutical benefits to the human diet.

This world wide publicity has enabled the tremendous expansion of all berry categories including blueberries in Australia and worldwide over the last 10 years..

This expansion in blueberry production has gone from 1984 tonnes in 2007 to over 3780 tonnes in 2011 season and has also resulted in a combined increase in blueberry consumption in Australia. The conference also included a very informative session on marketing with a major retail chain store and a large blueberry marketer. This session was aimed primarily at the quality and

consistency of the berry product being marketed by various parts of the industry and which varieties may be preferred by consumers and the major chain stores.

A post conference survey was conducted to provide the organising committee information on conference quality and future planning. Feedback from delegates on the quality and relativity of information presented was both informative and positive. Many issues that will affect producers in the near future were presented with the most up to date information available for them to make informed decisions.

Most people surveyed preferred a combined berry industry conference every 2 to 4 years compared to annually.



Australian Blueberry & Strawberry Conference

19 – 21 October 2011

Venue: *Rydges Oasis, Sunshine Coast, Caloundra QLD*

Program

Registrations 18th Tuesday

- 4.30pm – 5.30pm** Pick-up members from Brisbane airport travelling from interstate.
- 6.00pm – 7.30pm** Registration/ Pre-dinner drinks and canapés @ the Rydges Oasis
For Dinner – please make your own arrangements

Day 1 19th Wednesday – Market Tours

- 5.30am** Bus Departs for the Rocklea Markets, Sherwood Road, Rocklea
- 7.00am** **Tour of the Rocklea Wholesale Markets** (breakfast included)
Brisbane Markets is Queensland's main wholesale fresh fruit and vegetable market and one of six Central Markets found in Australia. Brisbane Produce Market is the most important centre for the marketing and distribution of fresh fruit and vegetables in Queensland.
- 10.00am** Bus departs for the Supermarket Distribution Centre – Larapinta Qld
- 10.30am** **Woolworths Supermarket Distribution Centre Tour**
A visit to a major supermarket supply chain to observe the logistics of product distribution.
- 12.00pm** Bus Departs to Newmarket for lunch www.thenewmarkethotel.com.au
- 12.30pm** Arrive at Newmarket Hotel, Cnr Enoggera & Newmarket Roads, Newmarket.
- 2.00pm** Depart to **Zone Fresh – Gourmet Market**, 142 Newmarket Road, Windsor
Zone fresh is a locally owned gourmet grocery outlet and their mission is to deliver the freshest local groceries and gourmet produce available around Brisbane to customers.
- 3.00pm** Bus Departs for the Rydges Oasis
- 4.30pm** **ABGA AGM & Market Update.** (afternoon tea included)
QSGA Presentation - Dr Craig Chandler – University of Florida plant breeder. *Responsible for the Florida Festival and Florida Fortuna strawberry varieties.*
Session Chair – Jennifer Rowling
- 6.00pm** Pre-dinner drinks and canapés @ the Rydges Oasis
- 7.00pm** BBQ Dinner @ the Rydges Oasis

Day 2 20th Thursday-Conference Day

- 9.00am** Welcome speech by The Hon. Peter Slipper MP
- 9.15am** **Session 1 Chair Paul Casey**
Dr Amy Howell, Associate Research Scientist for Berries (Rutgers University, New Jersey).
- 10.30am** Morning Tea
- 11.00am** **Session 2 Strawberry & Blueberry Sessions run concurrently**
Research, Development & Sustainable Development
Australian Blueberries - Chair Paul Casey
- **Dr Carolyn Scagel** – Research Scientist (US Department of Agriculture, Research Plant Pathologist) *At Berry Quest 2011 she will present new results from her research on seasonal dynamics nutrient use in blueberry in relationship to cropping, fertilizer type and application methods, irrigation scheduling, and mycorrhizal fungi.*
 - **Ian Vimpany & George Jessett** – Soils Consultant & Horticultural Manager, Berry Exchange, Corindi – *Optimal soil conditions for blueberry production*
 - **Paul Westbury** – Sunstate Rural Training. *New OHS legislation.*
- Australian Strawberries – Chair Jennifer Rowling**
- **Paul Westbury** – Sunstate Rural Training. *New OHS legislation.*
 - **Dr Annelle Reed** – Ekland Marketing of California - Marketing Manager. *Annelle has worked in the field of variety protection, plant breeder's rights and the introduction of new strawberry varieties into the global horticultural market.*
 - **Assoc. Professor Dr Edwin Pang** RMIT, Victoria. *Methods for accelerating production of new varieties using molecular biology and gene technology.*
- 12.30pm** Lunch
- 1.30pm** **Session 3**
Market Focus Panel Session - Chair Paul Casey
30 minutes each and 15 minutes question time
- Global Berry trends and influence on Australian marketing
Jon Gleeson Sales Manager, Driscoll's Australia
 - James Ashby, Marketing Manager, Gowinta Farms, Beerwah
 - Woolworths Representative, Rocky Tassone
- 3.30pm** Afternoon Tea and an opportunity to view sponsor booths.
- 4.30 pm** BerryQuest Future Meeting (Invitation only)
- 6.00pm** Pre-dinner drinks and canapés @ the Rydges Oasis
- 7.00pm** **Gala Dinner – Guest Speaker Dr Amy Howell**
Chair Len O'Connor



Day 3 21st Friday Field Day

- 7.00am** Depart Rydges Oasis (with bags) to **Strawberry Fields** (Pick your own)
- 7.30am** Arrive at Strawberry Fields, 133 Laxton Road, Palmview, QLD.
Jon and Bernadinie Carmichael's, Strawberry Fields is open to the public seven days a week during the strawberry season which is from June to November each year. The aim is to ensure all enjoy the best strawberry eating experience possible. To achieve this, Strawberry Fields focuses on the best eating varieties and grows them in a way that guarantees quality and sweetness. Using many natural products to produce the strawberries, Strawberry Fields has a reputation locally for having the sweetest and best looking strawberries available.
- 8.45am** Depart for the Field Day @ **Paradise Fruits**, 109 Spratt Road, Caboolture, QLD
- 9.30am** Arrive at Paradise Fruits

The QSGA is inviting you to the BerryQuest field day at Paradise Fruits.

- 9:30am** Gates Open (Coffee & Tea available)
- Tour of Paradise Fruits where we will see a commercial strawberry and blueberry farm.
Paradise Fruits have been growing berries in Queensland for more than 18 years. Paul Dydula, co-owner of Paradise Fruits with Andrew Krol, previously grew strawberries in Victoria for 10 years. Paul and Andrew operate two farms. A 32 Ha property of strawberries and a 16Ha property growing a variety of crops under poly tunnels. Produce grown under the tunnels include strawberries, raspberries and blueberries, and they are currently trialling Vine Sweet Capsicums. The majority of the raspberries are grown hydroponically.
- The poly tunnels provide an advantage in growing better quality berries for the markets. The fruit is protected from the elements, and production doesn't slow down or stop in winter as the tunnels help maintain a much warmer soil temperature. Paradise Fruits supply Woolworths in Sydney through XL Fruit, and their raspberries are sent into Brisbane through Perfection Fresh.*

12.30pm – 1:30pm BBQ

A variety of demonstrations/exhibits will be available to inspect.

- 4:30pm** Field Day Ends/ Bus Departs for Brisbane Airport.

- 5.30pm** Arrive at Brisbane Airport

Other Information

You will receive a program at the entrance gate.

Please dress sun smart, bring hat, sunscreen and comfortable shoes..

Key outcomes

The key outcome of the conference was the facilitated exchange of ideas between blueberry and strawberry growers, agency people, researchers and other supply chain partners in the berry industries

This was the first combined strawberry/blueberry conference or forum for researchers to exchange new research to the industry. . The last Berryquest conference in 2010 was held in Launceston Tasmania in an effort to unite various blueberry industry groups throughout the country. Combining two berry industry groups in the BerryQuest blueberry/ strawberry industry conference held in Caloundra in 2011 was trialled and found to be very successful due to the many similarities all berry fruit growers and supply chain partners face.

Conference Evaluation

The conference evaluation sheet was included in the conference folder and attendees were constantly reminded that we needed these filled out for future conference organisation. We also handed out spare copies in case these may have been lost.

During the conference, session chairs were reminded to mention the conference surveys that needed to be completed before they left on the last day which was also followed up at the field day. A number of the conference organisers followed up at the end of the conference and on the bus trip to the field day on the last day.

This is by far the best method of getting evaluation and feedback from such an event and the cheapest. Mail outs and phoning to get evaluations after the conference ends are very expensive and difficult to achieve. Many things are forgotten after a few days.

There were 32 respondents from 120 participants which is about 25%.

The qualitative and quantitative responses are attached in appendix 3.

Q1 Responses There was a good even mix of marketers, growers, resellers agency people and researchers

Q3 One third attendees were from NSW one third from Qld and one third from Victoria, Tasmania or ACT.

Q4 and Q5

Respondents rated the length of the conference as just right (80%) where 17% said it was too short. For the content 85% said the content was just right and 10% said it was too technical

Q6 Interesting sessions(see appendix 2)

Q10 Overall conference performance

Trade expo; all positive 100%

Organisation; all positive 100%

Relevance to needs; all positive 100%

More on marketing; 10% said no 90% yes

More on Production; 7% no, 93% yes

More research; 7% no, 93%yes

More workshops, less speakers; 20% no, 80% yes

Only field day activities 67% no, 32% yes

Q11 Next conference where should it be held

59% want Coffs Harbour
30% want Vic or Tasmania.
11% want Brisbane/Gold Coast

Q12 Preferred timing for conference

88% said April /May
12% said June/July
80% want conferences every 2nd year
18% every year
2% every 4th year

Q13 How would you like conference proceedings?

52% want it on the website
30% want it available on CD
18% want a printed copy

Q14 Recommendations for future conferences

The conference was a success by several measures however there are always methods of improving future conferences. The following recommendations are provided with this thought in mind. The qualitative responses from the delegate survey were a source of information used in compiling these recommendations.

- Give overseas invited guests or key note speakers more time on the program. It was thought that the half hour allocated to these speakers was inadequate. Unfortunately sponsors requested more viewing time for their sponsorship dollars so the program was altered to accommodate both groups
- It would be good to have a combined berryfruit conference which will occur in Victoria in 2013 with a combined strawberry, blueberry and Rubus industries and is now in the planning stages.
- Run concurrent sessions during conference to accommodate more speakers
- Have more workshops and interactive session/activities
- Labour issues are obviously of issue to us, so any program content that includes seasonal labour is of interest.
- There should have been better media coverage to cover this conference using ABC Country Hour and TV news.
- Keep conferences short. 1 day inside and 1 day outside. Run them every 3 or 4 years only as less is too frequent.

Summary

Most delegates were pleased with one day conference including a field day at the beginning to show attendees salient points in the whole of market chain handling. It is always difficult to appease both sponsors and growers at conferences as we rely heavily on both for support and both require maximum exposure to information. It is always a juggle in terms of how much or little time is allowed for each to benefit.

In most horticultural industries annual conferences are too frequent with generally not enough new information on research and development being available. Every 3-4 years is preferred by most organising committees in smaller industries as the workload on industry committees is horrendous.

The vast majority of people prefer to have proceedings available to them on websites which can then be downloaded as they need them or when they have available time. Printing and

sending out hard copies is wasteful and costly and it seems unwarranted by most growers these days.

The vast majority of berry growers would like to have a combination of berry industries conference on a regular basis with simultaneous breakout sessions for specific areas or workshops devoted to the particular berry category.

Industry will be informed of key outcomes and recommendations of the conference over the next 12 months via articles and research papers being published in the blueberry industry journal by the IDO and communications officer.

Registrations and Financial management (attachment 3)

The conference attracted 120 delegates from most states of Australia. The majority of delegates were from Victoria and Qld growing areas but we were pleased to host many blueberry growers from other regions. It was a little disappointing that so few blueberry growers from northern NSW attended as it was claimed that it was in the middle of their picking season.

Our estimates of numbers were very close to actual numbers with break even being around 100 - 120 paying attendees. The conference hosted 120 attendees over three days.

Sponsorship money from HAL and other sponsors was essential in underwriting the conference which also allowed funding of travel costs for international speakers.

The conference was run completely by the Blueberry and Strawberry conference organising committee made up of the blueberry and Qld strawberry industry IDOs and the blueberry communications manager and her office staff.

The committee met once each week by phone for approximately 12 months prior to the conference and in the last few months met twice weekly. The committee relied heavily on the communications manager and the industry website to post current information to growers and other supply chain partners.

The organising committee chair delegated specific tasks to each committee member which was checked the following week for progress.

The conference made a slight profit once all invoices had been submitted which will be available as 'seed' money for the next event which will be a combined strawberry, blueberry and Rubus event in 2013 in Victoria.. The planning for this event is already underway.

Sponsorship

The ABGA and Qld Strawberries organising committee phoned key industry partners resellers and other supply chain members to enlist support for the conference.

We gratefully acknowledge the generous support of the sponsors listed below.

Key Partners

Horticulture Australia Ltd

Industry and Investment NSW

Australian Blueberry Growers' Association

QLD Strawberries

Gold sponsors

Perfection Fresh

Silver Sponsors

Woolworths, Moraitis

Bronze Sponsors

Amcor, Landmark, Dow Agro sciences, Otc0 netting

Press Coverage and promotions

Information on the ABGA and Strawberries Australia website included registration brochure, call for abstracts, detailed program information and destination information.

Committee members used email and phone calls to contact potential delegates through their own professional networks.

An extensive email database with over 3000 entries (both Australian and international) was developed and used to distribute conference information and updates.

1. Newspaper promotions
(Appendix 1) There were a number of promotions in the local Northern Star newspaper in NSW and onto the fax stream leading up to the conference
2. Industry Newsletters
 - Australian blueberry industry journal April 2011
 - QLD strawberries industry newsletter
 - Good fruit and Vegetables Sept 2011
 - Good fruit and Vegetables Nov2010
 - Australian fruit Grower April 2010
3. Website promotions
 - NSW I&I, www.industry.nsw.gov.au
 - ABGA website www.ABGA.com
 - Australian strawberries
4. Radio
 - ABC Brisbane and Sunshine coast radio rural program one week prior to the conference

Appendix 1

Post conference publicity in Good fruit and Vegetable magazine

GOOD FRUIT & VEGETABLES

INFORMING THE AUSTRALIAN HORTICULTURE INDUSTRY

\$5.50 NOVEMBER 2011 Vol. 23 No. 5

15 NOV 2011

BERRY BLUES

Blueberry growers face challenges

ISSN 1321016-5

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Berryquest on the Sunshine Coast

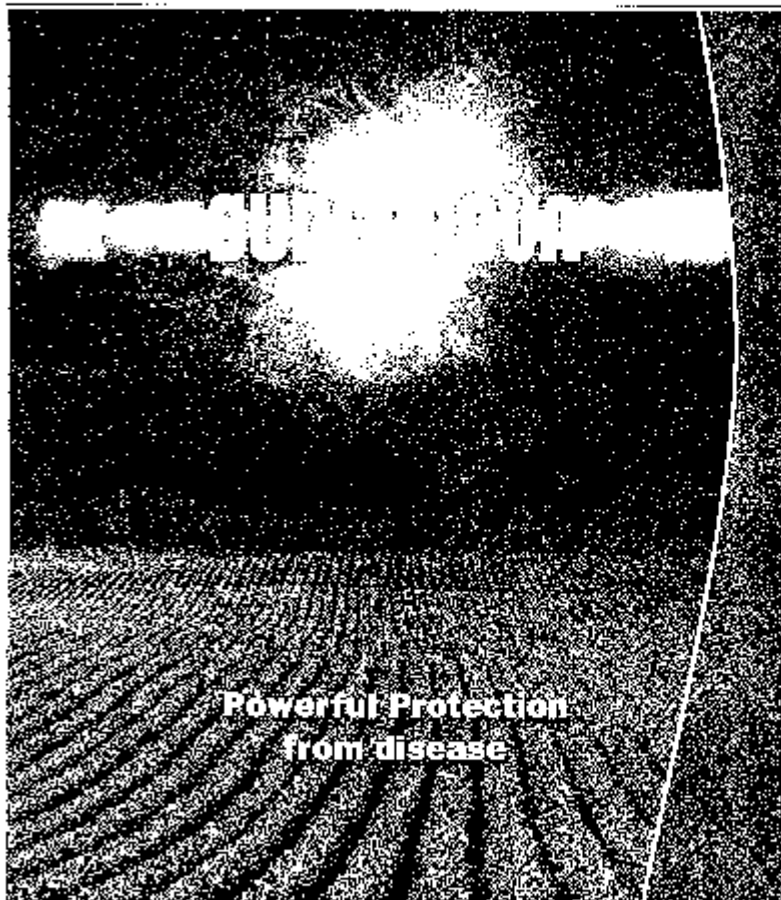
UBERBERRY and its associates will be in the Sunshine Coast from October 10-11, 2011, to promote the region's berry production. The conference will feature a number of speakers and a display of berry products.

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The conference will feature a number of speakers and a display of berry products.



Dr. J. Smith



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The conference will feature a number of speakers and a display of berry products.

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Dr. J. Smith



Dr. J. Smith

Appendix 2 Conference Survey results

BerryQuest combined blueberry and strawberry industry conference 2011 participant survey

Q1 Type of business/organisation

12	Grower	0	Transport operator	4	Marketer
2	Industry Assoc. rep.	6			Sponsor
5	Researcher	2	Government Rep.		
2	other Agronomist/reseller, other fruit grower				

Q2 How frequently do you attend blueberry conferences or similar events?

7	Always	13	most years	8	first conference
5	Sometimes depending on location	0	Never		

Q3 Where have you travelled from to attend the BerryQuest conference?

10	Qld	8	NSW	12	Other states Act/Vic/Tas
3	overseas				

Q4 Did you find the length of the BerryQuest conference program

26	Just Right	1	Too long	6	Too short to cover all topics
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Q5 Did you find the content of the BerryQuest conference program

24	just right	1	Not relevant to my needs
3	A little too technical	0	far too technical

Q6 Which sessions did you find most relevant to your needs?

Industry overview x2
Blueberries and Ageing x10
Strawberry marketing and breeding x 8
Marketing x4
Blueberry soils, nutrition and mycorrhizae x 6
Dinner presentation x10
Rural OH&S training x 5

Q7 Who were you favourite presenters?

Dr Amy Howell x 27
Dr Carolyn Scagel
George Jessett x 2
Marketers Jon Gleeson, James Ashby, Rocky Tassone x 3
Professor Eddie Pang x 5
Dr Craig Chandler x 3
Dr Annette Reed x 2
Paul Westbury

Q8 What is the most important thing you will take away from this conference?

Networking with other growers x2
Health benefits of blueberries as a selling point 5
Better communication with the industry
Market access issues
Key industry issues
Nutrient management of blueberries
Paying more attention to OH&S issues
Better understanding major supermarkets
Field day visits to distribution centres and Brisbane markets
Marketing information and world berry trends

Q 9 What did you least like about the conference?

Strawberry field day not enough content x 2

Need longer sessions for invited overseas speakers x 4

More practical workshops needed x 5

Sponsor sessions could be better organised x 2

Sound problems and microphones not functioning are annoying x 2

Venue was a little cramped and difficult to organise properly

Some equipment malfunction

Did not like the session on USA blueberry nutrition

Sponsors need more time with growers

Need more on insect and disease management issues

Q10 Please rate the following statements on a scale of 1-7 (please circle number 1 if you strongly disagree or number 4 if you neither agree or disagree or number 7 if you strongly agree)

Strongly		disagree		strongly agree			
I found the Trade Expo to be interesting & Informative	1	2	3	4x9	5x10	6x5	7x4
I found the 2011 BerryQuest conference to be well organised	1	2	3	4x1	5x6	6x19	7x11
I found the 2011 BerryQuest Conference to be relevant to my needs	1	2	3	4x5	5x15	6x12	7x4
I would like to see more in the program on marketing issues	1	2x1	3x3	4x4	5x7	6x8	7x10
I would like to see more in the program on production issues	1	2	3x3	4x9	5x11	6x14	7x3
I would like to see more in the program on research and development issues	1	2	3x3	4x13	5x8	6x4	7x10
I would like to see more interactive workshop sessions, and less speakers	1	2x2	3x7	4x12	5x10	6x2	7x3
I am really only interested in field days and other more "hands on" activities	1x8	2x13	3x6	4x7	5x3	6x1	7

Q11 After Caloundra, where would you prefer to have the next berry conference held?QLD 2 x Brisbane /gold coast 10 x NSW Coffs Other 5 Vic (nominate centre)**Q12 What is your preferred timing for BerryQuest conferences?**5 April5 May2 June1 July3 AugustOther October 1215 Every second year16 Every third year5 Every fourth year**Q13 In which format would you prefer the conference proceedings to be made available**8 Printed12 CD Rom22 Posted on website0 Other**Q 14 Other suggestions for conference activities or suggestions on improving the conference program**

We need a list of contacts of conference delegates

I would prefer to have a few workshops run together and have delegates choose which they attend
Key note speakers need to be given at least an hour to allow them to adequately present their work
Well run and kept to time

Have concurrent sessions during the conference to accommodate more speakers.

Prefer to have the conference in a blueberry region such as Victoria or Coffs harbour

Presenters to be on hand to answer questions after their talks.

Northern NSW growers find it difficult to attend conferences at this time as it is their peak season.
April, May or June are better.

Prefer to have a combined berry industry conference with all major berry groups.

Prefer three yearly conferences.

The pre conference tours to the distribution centre and markets were very informative and interesting.

Keep issues that average farmers are unable to deal with shorter. The main aim of the conference is for farmers to get together and exchange ideas. Growers need to know details for controlling problems to do with on farm production. Target pest and disease issues in best practice session which may encourage more participants attending.



Australian Blueberry & Strawberry Conference

19 – 21 October 2011

*Rydges Oasis
Sunshine Coast
Caloundra QLD*

2011 **berry**
quest



Sponsors



Horticulture Australia



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SPONSOR SUPPORTERS

- *NSW Primary Industries*
 - *Strawberries Australia Inc*
 - *Australian Blueberry Growers Association*
-

FIELD DAY EXHIBITORS

- *Amgrow*
 - *The Pump House*
 - *Austra Hort Seed Merchants*
 - *Aperio Group*
 - *John Deere Water*
 - *Mea / Growcom*
 - *BankWest*
 - *Quiedan Australia*
 - *Mr Labels Pty Ltd*
 - *WFI*
 - *Landmark*
 - *Recovered Resources Australia (RRA) Pty Ltd*
 - *Insignia*
 - *Nutri-Tech Solutions*
 - *Organic Crop Protectants*
 - *Elders*
 - *DrumMuster*
 - *Dy-Mark (Aust) Pty Ltd*
 - *Suncoast Rural Pty Ltd*
 - *Barmac Pty Ltd*
-

Organising Committee

Australian Blueberry & Strawberry Conference 19–21 October 2011

Organising Committee

- Phil Wilk – Blueberry Industry Development Officer
- Andrea Castine – Mountain Blue Orchards
- Natalie Bell – Communication Officer, Australian Blueberry Growers Association
- Jennifer Rowling – Industry Development Officer, Queensland Strawberries

Registrations

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Conference Proceedings

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Department of
Primary Industries





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A visit to a major supermarket supply chain to observe the logistics of product distribution.
- 12.00pm** Bus Departs to Newmarket for lunch www.thenewmarkethotel.com.au
- 12.30pm** Arrive at Newmarket Hotel, Cnr Enoggera & Newmarket Roads, Newmarket.
- 2.00pm** Depart to **Zone Fresh – Gourmet Market**, 142 Newmarket Road, Windsor
Zone fresh is a locally owned gourmet grocery outlet and their mission is to deliver the freshest local groceries and gourmet produce available around Brisbane to customers.
- 3.00pm** Bus Departs for the Rydges Oasis
- 4.30pm** **ABGA AGM & Market Update.** (afternoon tea included)
QSGA Presentation - Dr Craig Chandler – University of Florida plant breeder. *Responsible for the Florida Festival and Florida Fortuna strawberry varieties.*
Session Chair – Jennifer Rowling
- 6.00pm** Pre-dinner drinks and canapés @ the Rydges Oasis
- 7.00pm** BBQ Dinner @ the Rydges Oasis

Day 2 20th Thursday-Conference Day

- 9.00am** Welcome speech by The Hon. Peter Slipper MP
- 9.15am** **Session 1 Chair Paul Casey**
Dr Amy Howell, Associate Research Scientist for Berries (Rutgers University, New Jersey).
- 10.30am** Morning Tea
- 11.00am** **Session 2 Strawberry & Blueberry Sessions run concurrently**
Research, Development & Sustainable Development
Australian Blueberries - Chair Paul Casey
- **Dr Carolyn Scagel** – Research Scientist (US Department of Agriculture, Research Plant Pathologist) *At Berry Quest 2011 she will present new results from her research on seasonal dynamics nutrient use in blueberry in relationship to cropping, fertilizer type and application methods, irrigation scheduling, and mycorrhizal fungi.*
 - **Ian Vimpany & George Jessett** – Soils Consultant & Horticultural Manager, Berry Exchange, Corindi – *Optimal soil conditions for blueberry production*
 - **Paul Westbury** – Sunstate Rural Training. *New OHS legislation.*
- Australian Strawberries – Chair Jennifer Rowling**
- **Paul Westbury** – Sunstate Rural Training. *New OHS legislation.*
 - **Dr Annelle Reed** – Ekland Marketing of California - Marketing Manager. *Annelle has worked in the field of variety protection, plant breeder's rights and the introduction of new strawberry varieties into the global horticultural market.*
 - **Assoc. Professor Dr Edwin Pang** RMIT, Victoria. *Methods for accelerating production of new varieties using molecular biology and gene technology.*
- 12.30pm** Lunch
- 1.30pm** **Session 3**
Market Focus Panel Session - Chair Paul Casey
30 minutes each and 15 minutes question time
- Global Berry trends and influence on Australian marketing
Jon Gleeson Sales Manager, Driscoll's Australia
 - James Ashby, Marketing Manager, Gowinta Farms, Beerwah
 - Woolworths Representative, Rocky Tassone
- 3.30pm** Afternoon Tea and an opportunity to view sponsor booths.
- 4.30 pm** BerryQuest Future Meeting (Invitation only)
- 6.00pm** Pre-dinner drinks and canapés @ the Rydges Oasis
- 7.00pm** **Gala Dinner – Guest Speaker Dr Amy Howell**
Chair Len O'Connor



Day 3 21st Friday Field Day

- 7.00am** Depart Rydges Oasis (with bags) to **Strawberry Fields** (Pick your own)
- 7.30am** Arrive at Strawberry Fields, 133 Laxton Road, Palmview, QLD.
Jon and Bernadinie Carmichael's, Strawberry Fields is open to the public seven days a week during the strawberry season which is from June to November each year. The aim is to ensure all enjoy the best strawberry eating experience possible. To achieve this, Strawberry Fields focuses on the best eating varieties and grows them in a way that guarantees quality and sweetness. Using many natural products to produce the strawberries, Strawberry Fields has a reputation locally for having the sweetest and best looking strawberries available.
- 8.45am** Depart for the Field Day @ **Paradise Fruits**, 109 Spratt Road, Caboolture, QLD
- 9.30am** Arrive at Paradise Fruits

The QSGA is inviting you to the BerryQuest field day at Paradise Fruits.

- 9:30am** Gates Open (Coffee & Tea available)

Tour of Paradise Fruits where we will see a commercial strawberry and blueberry farm.

Paradise Fruits have been growing berries in Queensland for more than 18 years. Paul Dydula, co-owner of Paradise Fruits with Andrew Krol, previously grew strawberries in Victoria for 10 years. Paul and Andrew operate two farms. A 32 Ha property of strawberries and a 16Ha property growing a variety of crops under poly tunnels. Produce grown under the tunnels include strawberries, raspberries and blueberries, and they are currently trialling Vine Sweet Capsicums. The majority of the raspberries are grown hydroponically.

The poly tunnels provide an advantage in growing better quality berries for the markets. The fruit is protected from the elements, and production doesn't slow down or stop in winter as the tunnels help maintain a much warmer soil temperature. Paradise Fruits supply Woolworths in Sydney through XL Fruit, and their raspberries are sent into Brisbane through Perfection Fresh.

12.30pm – 1:30pm BBQ

A variety of demonstrations/exhibits will be available to inspect.

- 4:30pm** Field Day Ends/ Bus Departs for Brisbane Airport.

- 5.30pm** Arrive at Brisbane Airport

Other Information

You will receive a program at the entrance gate.

Please dress sun smart, bring hat, sunscreen and comfortable shoes..



Department of
Primary Industries



Session 1

Dr. Amy B. Howell

Ph.D., Rutgers University

Associate Research Scientist for Berries

Blueberries and Strawberries as Functional Foods Effects on Metabolic Syndrome and the Aging Brain

Metabolic syndrome is a name for a group of risk factors that occur together and increase the possibility for coronary artery disease, stroke, type 2 diabetes and dementia. Abdominal obesity, hypertension, cholesterol abnormalities, insulin resistance and aging are all known to contribute to this syndrome. In Australia, it is estimated that at least 22% of adults have metabolic syndrome, with the prevalence even higher in the elderly. Research has demonstrated that oxidative stress and increases in inflammation, processes known to influence the progression of the syndrome and lead to declines in cognitive and motor function in the elderly, can be reduced by consuming blueberries and/or strawberries on a regular basis. Both fruits have been shown clinically to have positive effects on the body's use of insulin, which may help reduce progression to type 2 diabetes.

Both strawberries and blueberries are rich sources of flavonoid phytochemicals known to have potent health effect. In this lecture, an overview of clinical and mechanistic research will be presented illustrating the significant potential of blueberries and strawberries to contribute to reducing risk factors associated with metabolic syndrome and age-related mental decline.

Evening dinner lecture

Secrets of Successful Aging – The Berry Connection

We are continually bombarded by stress....stress produced by our own bodies and brains in response to things like pollutants, chemicals, poor diet, illness, and the anxieties associated with daily living! The resulting oxidative stress and inflammation in our bodies leads to numerous illnesses and afflictions, especially as we age. Genetics is important, but diet also plays a significant role in determining how successful our aging process will be (since we don't all reach the finish line in the same condition!). We've all heard that fruits and vegetables can contribute to maintenance of good health and that we should be eating anywhere from 5-9 servings a day. This can be unrealistic for many of us, especially when we are eating more prepared and "fast" foods.

Consumers are looking for answers and are often seduced by claims that certain exotic "Super Fruits" or supplements will impart amazing health benefits...for a price. Often there is little or no clinical research done on these fruits to support the claims. Berries (blueberries, strawberries, cranberries) are the exception – they do have intriguing clinical results for a number of health issues that affect the aging process. I will discuss the different biological activities of berries and how we can consume them in different forms to maintain health and vitality.

My research program at the Marucci Center for Blueberry and Cranberry Research at Rutgers University in New Jersey has focused on natural products from cranberries and blueberries that benefit health. My main focus has been on identifying the active compounds in cranberries and blueberries that prevent urinary tract infections and determining their role in maintenance of urinary tract health. We isolated specific compounds from these fruits, called proanthocyanidins (PACs), which we found to be capable of preventing *E. coli* bacteria from attaching to cells from the urinary tract. This work was published in *The New England Journal of Medicine* in 1998.

We have since identified the unique molecular structures of the unusual A-type PACs from *Vaccinium* fruit and found a link between them and prevention of bacterial adhesion, not only in the urinary tract but also in the stomach (for prevention of stomach ulcers) and oral cavity (for prevention of plaque and periodontal disease).

Other projects include studying the pharmacokinetics and bioavailability of the A-type PACs in an effort to determine site(s) of action, dose-response, and bioactive urinary metabolites. Recently, we have been involved in method development for accurate quantification of A-type PACs in supplement and juice products.

For the last 6 years, I have served as a board member on the USDA-sanctioned US Highbush Blueberry Council. My role is to evaluate research proposals submitted to the group on blueberries and health promotion and to help define the direction of research and how it can best be utilized for promotion to consumers. Research on blueberries, which originally focused on antioxidant activity, has now expanded into the areas of reducing insulin resistance, anti-inflammation, and cell signalling modulation. Much of the research involves the effects of blueberry on age-related mental decline, including cognitive and motor functions. Increases in functionality have been observed in both animal and human trials following consumption of blueberries. Blueberries are known for their broad array of phytochemicals, especially flavonoids. Although attention has been focused on the anthocyanin pigments, the compounds responsible for the various medicinal activities have not been fully elucidated, and could include several different classes of polyphenolics. Blueberries should indeed be considered “super” fruits!

Dr. Howell is an associate research scientist at the Marucci Center for Blueberry and Cranberry Research at Rutgers University in New Jersey, where she works on isolating natural products from cranberries and blueberries that benefit health.

Since 1993, Dr. Howell has been engaged in research aimed at identifying the active compounds in cranberries that prevent urinary tract infections and determining their role in maintenance of urinary tract health. She and her team discovered an unusual type of tannin compound in both cranberries and blueberries, called proanthocyanidin that has a unique type of molecular structure which help prevents infections by keeping bacteria from adhering to cells in the body. This work was published in *The New England Journal of Medicine* in 1998.

Currently, she is engaged in National Institutes of Health projects to study clinical efficacy and dose response of cranberry, identify biomarkers in urine that have bacterial anti-adhesion activity, and determine if consumption of these fruits can positively impact efficacy of antibiotics. She also collaborates on anti-cancer, anti-viral and oral cavity health research. She has presented her research findings at numerous professional meetings and to industry groups in the U.S. and internationally.

Her work has been featured in magazine and newspaper articles and she has appeared on radio and television programs discussing her research (New York Times, National Public Radio, Today Show, Good Morning America, Dr. Oz, etc). Dr. Howell serves as a board member on the US Highbush Blueberry Council and as a Scientific Advisory Board member for The Hershey Company, and You-Tea, Inc.

She is the president of Association DMAC in the European Union, which provides scientific validation of the DMAC method for quantification of cranberry proanthocyanidins to support EFSA health claim applications. She is a scientific expert and media liaison for the International Food Information Council on Food Safety and Nutrition, and a member of the Media Speakers Bureau for the Cranberry Marketing Committee.



Session 2

Australian Blueberries

Dr. Carolyn Scagel

B.Sc. (UBC); Ph.D. (OSU)

Research Scientist, US Department of Agriculture, Research Plant Pathologist

Blueberry Nutrition – What can we really control?

There is a large amount of basic information available on the physiology of *Vaccinium* in natural systems. Extending this information to horticultural production systems is a great challenge because of differences due to (1) plant genotypes; (2) physical, chemical, and biological environments; and (3) expectations or end products.

Research results showing similarities and differences between nutrition of blueberry in natural systems versus horticultural production systems will be presented, including examples of how the environment influences nitrogen, phosphorus, and iron uptake and demand.

Cultural practices used in commercial blueberry production have been developed primarily through decades of trials, errors, and successes and therefore have a regional basis that may not have broad scale application even with modifications. Research results demonstrating why certain cultural practices are successful in specific regions will be presented including examples of how the environment influences the effects of fertilizer rate and formulation on fertilizer use efficiency in blueberry. Ericoid mycorrhizal fungi (EMF) play an important role in nutrition of *Vaccinium* in natural ecosystems however their roles in horticultural production systems has received little attention. Research results describing responses of *Vaccinium* to inoculation with EMF will be presented, including examples of how cultural practices such as early cropping and in-row spacing can influence EMF, root growth, and nutrient demand. Selective breeding for fruit and plant qualities can have large effects on nutrition of blueberry plants and their cultural requirements for optimal production. Research results demonstrating how germplasm source influences blueberry nutrition will be presented including responsiveness of blueberry varieties to fertilizer type and EMF. Our basic knowledge of *Vaccinium* nutrition can be used to predict how environmental factors alter nutrition in horticultural systems and potentially aid in the transfer and adoption of cultural practices among blueberry growing regions.

So why is nutrient management consistently ranked as a high priority by growers in regions where blueberries have been commercially grown for a century and in regions where commercial blueberry production only started during the last few decades? The answer may lie in the inherent challenge of domesticating plants in a time frame that meets our expectations as well as the continually changing production challenges of diseases and pests and limiting resource availability (e.g. water, finances, personnel).

Dr Scagel is a Research Plant Physiologist at the USDA-ARS-Horticultural Crops Research Laboratory in Corvallis, Oregon. She has authored over 60 peer-reviewed publications and multiple publications for trade journals, workshops, book chapters, and symposiums.

She has research expertise in hormonal regulation of root growth and adventitious rooting in woody perennials; the effects of environmental stress of root respiration and nutrient uptake in woody perennials; cultural factors that influence chemical and quality attributes of culinary and medicinal herbs, geophyte nursery crops, and grapevines; nutrient management in woody nursery and small fruit production systems; and factors that influence the function and use of mycorrhizal fungi in horticultural production.

One main focus of Dr. Scagel's current research program is understanding how environmental factors alter efficiency of nutrient uptake and use in woody perennial cropping systems of economically important ericaceous nursery (*Rhododendron*) and small fruit crops (*Vaccinium* species). With blueberry, she has collaborated with local researchers and researchers in Australia to document the variation in cultural and soil factors in blueberry production and evaluated how factors such as fertilizer application, in-row spacing, and early cropping may influence presence and function of ericoid mycorrhizal fungi and blueberry productivity. Her work with blueberry also includes evaluation of seasonal nutrient uptake and use by blueberry provided with organic and inorganic nutrient sources; how mycorrhizal inoculation in the nursery influences blueberry growth and nutrient use; and the effects of foliar nutrient applications of nitrogen and calcium impact blueberry growth and cold hardiness. Much of her work has included a range of northern and southern highbush and rabbiteye blueberry varieties, providing insight into similarities and differences between varieties in their response to different management strategies. For example, she has documented how crop load and time of fruiting has alters nutrient and carbon accumulation patterns in different varieties and how varieties that are genetically close showed a high degree of variability in response to mycorrhizal fungi, while responses to fertilizer type were similar in closely related varieties.

At Berry Quest 2011 she will present new results from her research on seasonal dynamics nutrient use in blueberry in relationship to cropping, fertilizer type and application methods, irrigation scheduling, and mycorrhizal fungi. Blueberry production in the USA is expanding to areas where nutrient and water inputs are becoming a greater challenge to efficient production and many of these newer production challenges are similar to those now faced by Australian blueberry growers. For more information of Dr. Scagel's previous research see <http://www.ars.usda.gov/pwa/hcrl/scagel>.

Contact: Dr Carolyn Scagel, scagelc@onid.orst.edu



Ian Vimpany

Soils Consultant, Vimpany Orchard Services,
Alstonville NSW

George Jessett

B.App.Sc. Hons Agricultural Systems & Management, Massey University
Horticultural Manager,
Berry Exchange, Corindi, NSW

Optimising Blueberry Soil Chemistry Requirements for Production and Plant Health

Past practices in farming of blueberries on the Corindi Plateau using ammonium based fertilisers (ammonium sulphate and MAP) led to rapid decline in soil pH and unfavourable soil chemistry for plant health. The changes in soil chemistry caused considerable concern for future blueberry production as the fertiliser regime and its effects on the soil did not seem sustainable.

Management practices on-farm have been adjusted to include the use of less acidifying forms of nitrogen fertilisers (ammonium nitrate) and the application of fine lime to address low pH soil issues. A regular liming programme has resulting in greatly improved plant health and productivity. In the past, poor plant growth was often blamed on root disease, soil compaction and poor aeration.

Whilst these problems should not be discounted it is now suggested that a soil analysis may inevitably reveal a low pH and aluminium levels of greater than 0.5 meq/100g and calcium levels below 1.0 meq/100g in poor performing soils.

Ian Vimpany

Vimpany Orchard Services
Alstonville NSW

I worked as a soils research officer for NSW Agriculture for 35 years and since retiring in 1994 have worked as a private consultant in advising growers on plant nutrition and soils additives.

My current work is advising the Australian macadamia industry and the blueberry industry on nutrition programs on the far north coast and the Woolgoolga regions of NSW.

Contact: Ian Vimpany

Vimpany1@internode.on.net

Phone: 0266 281297



George Jessett

Horticultural Manager, Berry Exchange,
Corindi, NSW

I graduated from Massey University with a degree in Applied Science Horticulture (Hons Agricultural Systems and Management). Initial work was conducted in viticulture (both NZ and Australia). Since 2005 I have been working for BerryExchange in the role of Horticultural Manager.

During this time I have focussed on improving cultural management techniques on farm:

- Soils and Nutrition
- Soil amendment
- Pruning
- Redevelopment programs

Responsibilities also include the management of farm operations in our joint venture in Morocco growing Southern Highbush blueberries.

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Paul Westbury

Sunstate Rural Training

Paul originates from Colac in Western Victoria and moved to Queensland in 1994 for 'life style' reasons. "I was over the cold winters" he says. His background is in industrial relations and OHS; however he has started, bought and sold a number of businesses over the years using his management systems to make the businesses profitable.

In 2001 he delivered two seminars in Bundaberg on avoiding/managing claims by workers under Queensland Employment Legislation, which was well attended and included a number of farmers. In 2005 he established Sunstate Rural Training, to teach farmers how to avoid those worker claims and how to manage them.

During 2007 Paul delivered his OHS course to several members of the committee of the Queensland Strawberry growers under 'FarmBis' funding. Some of these Strawberry businesses have recently been audited by WH&S Qld with excellent results. Last year in December he delivered his 'FarmReady' approved "Understanding Farm Risk Management" course to a number of Queensland Strawberry growers, which brought home to them the reality of the health and safety risks they faced.



Below is a comment from a Strawberry Grower who has attended his courses:

Hi Paul

I just wanted to give you some feedback on the effectiveness of the recent course you ran on Strategic People Management for Farms. I have now completed 2 of your courses; the first was the Occupational Health & Safety (OH&S) course and more recently, Strategic People Management for Farms.

After completing the OH&S course a year ago, I felt I needed more information to incorporate the information provided into our farm operations. After completing Strategic People Management for Farms, I have been able to effectively implement strategies from both courses as you have greatly simplified OH&S for me, and made it a lot easier to understand and translate into everyday use. In particular, I found the Company Rules & Employee Handbook and the Policy & Procedures guide helpful in that if there was an incident, these two guides will be essential in dealing with and resolving these incidents.

Thank you for simplifying the overwhelming task of OH&S. I'm sure many others will also find these courses imperative to improving their business, and I would highly recommend both to anyone else who has been faced with the daunting task of updating their OH&S procedures.

Andrew Krol, Paradise Fruits. 3 November 2010

Paul's consulting practice is currently assisting farmers across Queensland with a variety of workers' compensation claims and other matters relating to discipline, discrimination and workplace harassment.

Dr Annelle Reed

Ekland Marketing, California

Florida Fortuna in the World Market

The Florida Fortuna strawberry variety was released by the University of Florida in 2008. As Master Licensee for the introduction of this variety into markets outside of the U.S. and Canada, Ekland Marketing has initiated the introduction of this promising variety in Europe, Africa, Latin America and Australia. Growers in winter production areas are using several plant types and production systems successfully with this variety – open field, micro tunnel, macro tunnel, hydroponics, fresh, fresh chilled, and frigo plants and finding a early, highly productive variety with excellent fruit quality.

Annelle Reed serves as the Vice-President and Director of the small fruit variety program of Ekland Marketing Company (EMCO CAL). For the past twenty years, Annelle has worked in the field of variety protection, plant breeder's rights and the introduction of new strawberry varieties into the global horticultural market. She has supervised PBR registration of new varieties in over 25 countries, including Australia and New Zealand. Annelle has travelled to 20 countries, meeting with legal experts, nurserymen and fruit growers. She is well versed in the many fruit production systems employed by strawberry growers in diverse production environments.

With Bachelor and Master's degrees from universities in California, Annelle works closely with the strawberry variety development program at the University of Florida. As part of the EMCO CAL management team, she brings to the international market the innovations emerging from this dynamic and important plant breeding centre. She is also instrumental in bringing into the international market new strawberry varieties developed by Dr. Mark Herrington at the Agri-Science Queensland, Department of Employment Economic Development and Innovation.



Dr Craig K. Chandler

Craig K. Chandler, Professor Emeritus, University of Florida

Importance of 'Festival' and 'Fortuna' strawberry to the Florida strawberry industry

'Festival' has been the workhorse of the Florida strawberry industry for nearly a decade. Its fruit are resistant to rain damage and bruising and are easy to harvest. 'Festival' produces many medium size, conical fruit that are ideal for packing in the 1 lb (454 g) plastic clamshell container that is dominant in the U.S. supermarket trade. 'Fortuna' is a newer variety that is quickly becoming important in Florida because its production is complimentary to that of 'Festival'. 'Fortuna' fruit are typically large, glossy, and, like 'Festival', resistant to rain damage and easy to harvest. 'Fortuna' has also performed well in southern California and is showing promise in other winter/early spring production areas around the world.

1976	Received B.S. degree in Plant Pathology from the University of Florida
1977-78	County extension agent in Georgia, working with farmers who grew agronomic crops (mostly corn, soybeans, and cotton)
1980	Received M.S. degree in Horticulture from the University of Florida
1983	Received Ph.D. degree in Horticulture from the University of Maryland
1983-87	Research Scientist for Ohio State University, conducting R&D on pears and strawberries
1987-2010	Director of the University of Florida strawberry breeding program
2010- Present	Professor Emeritus at the University of Florida's Gulf Coast Research and Education Center (GCREC).

During Craig's tenure as the University of Florida's strawberry breeder, he was one of only two full-time public strawberry breeders in the U.S. Several of the cultivars Craig developed ('Sweet Charlie', 'Festival', and 'Fortuna') have been readily accepted in Florida and other annual production areas around the world. Craig has collaborated with colleagues in related disciplines, including plant pathologists, entomologists, plant physiologists, and food scientists. His numerous co-authored publications attest to the success of these collaborations. Strawberry growers, researchers, and extension specialists from many states and countries have visited GCREC to talk with Craig and see his field trials.

Craig continues to work part-time with berry crops while pursuing other plant-related interests.



Associate Professor Edwin Pang

Professor of Molecular Plant Breeding, Biotechnology & Environmental Biology,
School of Applied Sciences, Royal Melbourne Institute of Technology,
Bundoora, Victoria Australia.

Accelerating the Production of New Strawberry Varieties via Molecular Genetics

The Australian strawberry industry has raised concerns of a public perception that strawberries are not what they used to be in terms of their flavour. In recent years, local varieties have been produced, whose flavour characteristics have been rated as superior to imported varieties. To accelerate the local breeding program, Separation Science and Molecular Genetic technology have been implemented to more efficiently screen breeding lines for desirable flavour and agronomic characteristics. Phenotypic characterization of two commercial strawberry varieties (Albion and Juliette), and three promising breeding lines with intense flavour (07-102-41, 07-095-35 and 04-069-91) were evaluated using solid phase microextraction (SPME) coupled with two-dimensional gas chromatography (GC x GC) and time-of-flight mass spectrometry (TOF-MS). Fisher's ratio and Discriminant Function Analysis were employed to select the key flavour compounds which could discriminate the breeding lines from the commercial varieties. The relationships among the five strawberry genotypes were determined by Principal Component Analysis and Hierarchical Cluster Analysis. Albion was classified as the out group of the cluster whereas the two breeding lines, 07-102-41 and 07-095-35, were grouped together, followed by 04-069-91 and Juliette.

All these data will provide useful information for DNA pooling in the subsequent Subtracted Diversity Array construction. Correlation studies will be performed between the subtractive clones and the aroma profiles to deduce the most promising DNA sequences corresponding to key flavour compounds. Further, as the final flavour characteristics of a variety depends on the interaction between the genes it carries ("Nature") and the environment ("Nurture"), the current project also attempts to elucidate the relative importance of the genotype versus the environment. Correlations were established between the chemical profiles derived from GCxGC and GC-TOFMS and variations in several key environmental parameters during the growing season. The broad-sense heritability of each compound was also determined.

Professor Eddie Pang obtained a Bachelors of Agricultural Science with Honours and subsequently a PhD in Plant Breeding from the University of Melbourne in 1992. After working at Agriculture Victoria for several years as a pea geneticist, he returned to academia, firstly at the University of Melbourne, and subsequently at RMIT University, where he has lectured and conducted research into molecular plant breeding since 1998. He has co-authored over 60 peer-reviewed journal articles and book chapters in a diverse range of topics, ranging from plant breeding, genomics tissue culture and evidence-based herbal medicine. His current interests include the establishment of a viable Chinese herbal industry in the Whittlesea area, and investigations into the environmental and genetic factors affecting flavour development in strawberries.



Eddie Pang,
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Biotechnology & Environmental Biology,
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Jon and Bernadine Carmichael, Strawberry Fields

133 Laxton Road, Palmview, Queensland.

Strawberry Fields supply wholesale strawberries, both locally and interstate 12 months of the year and are happy to take any enquiries. We supply wholesale with a range of different packs and grades of Strawberries. The season runs from our farm at Palmview June to November and from our farm at Stanthorpe November to May. Our pricing is based on the current market trends and we can supply your strawberries as required. Both farms have retail outlets.



Paul Dydula, Paradise Fruits

109 Spratt Road, Caboolture, Queensland.

Paradise Fruits have been growing berries in Queensland for more than 18 years. Paul Dydula, co-owner of Paradise Fruits with Andrew Krol, previously grew strawberries in Victoria for 10 years.

Paul and Andrew operate two farms. A 32 hectare property of strawberries and a 16 hectare property growing a variety of crops under poly tunnels. Produce grown under the tunnels include strawberries, raspberries and blueberries, and they are currently trialling Vine Sweet Capsicums. The majority of the raspberries are grown hydroponically.

The poly tunnels provide an advantage in growing better quality berries for the markets. The fruit is protected from the elements, and production doesn't slow down or stop in winter as the tunnels help maintain a much warmer soil temperature.

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