January 2009

PYLINES

NEWSLETTER
OF THE AUSTRALIAN
PYRETHRUM INDUSTRY

Botanical Resources
AUSTRALIA

Amid global crisis, pyrethrum grows

In 2008, we have all been touched directly or indirectly by the widespread negative effects of world events - events which have created enormous hardship and difficulties for many. It is testament to the strength of a business if it can survive such a worldwide financial crisis: to continue to grow in such times is a sign that a business is thriving.

Managing Director, Ian Folder, walks through a field of echinacea

2009 will be both an important and challenging year for BRA, as it will mark a significant expansion in both field production and processing activities. The present increase in production of BRA's pyrethrum product was signalled back in 2007 and since this time, the company has been provided with the opportunity to expand at a faster rate. As usual, BRA has accepted the challenge. Despite the present global downturn, BRA is on track to grow, harvest, process and deliver in 2009 over 50% more pyrethrum product than it did in 2006. With a further 25% increase in production in 2010, BRA will be supplying more than 60% of the current forecast for world demand.

To back this expansion, BRA has developed a number of strategies to ensure its place as the leading, long term and reliable global supplier of natural pyrethrum. Whilst costs rise and competition for good quality land with water continues to be an issue, BRA has increased the area which it farms in Tasmania through a combination of leasing and purchase – and a spreading of the Tasmanian growing area into the far North East and North West coasts of the island. To further expand its operations, the company plans to develop a stand-alone operation in Ballarat, Victoria, on the Australian mainland. This pyrethrum growing area yielded its first experimental crop in 2002/2003 and will see its first large scale plantings in late 2009. In addition to expansion within Australia, BRA is also now working closely with both the Australian Government and the Government of Papua New Guinea to reinvigorate the pyrethrum industry in the PNG highlands.

To support this increase in pyrethrum growing, BRA has been successful in attracting some new, highly experienced field staff. New personnel have also joined BRA's Ulverstone laboratory, and the company's Research and Development sector, with greater focus on gaining a better understanding of pyrethrum stability in the post harvest/pre-processing period.

BRA has made substantive investments in processing infrastructure during 2008 with more planned during 2009. This will ensure the capacity to rapidly convert additional harvested crop into finished product. These investments and staff increases are a major milestone for BRA and will be critical to the company delivering on its growth targets over the next five years.

International Pyrethrum Conference for Tasmania

In a clear demonstration of BRA's international leadership role in the pyrethrum industry, the company will host a scientific and industry development conference in Tasmania in 2010. The conference will highlight science and technology developments to industry stakeholders and demonstrate that pyrethrum product is now reliably available, has successful registration reviews in the USA and EU; and that the Tasmanian-based industry is able to expand to meet global demand. "We look forward to welcoming the world pyrethrum community to Tasmania in 2010" says Brian Chung, the Conference Convener.

Product Development Manager and Conference Convener - Brian Chung.

Grower's pyrethrum planting is no leap of faith

When a farmer makes the decision to plant the majority of his farm to pyrethrum, it shows a considerable amount of faith in the industry. This is the situation on Scott and Debbie Munday's farm near the town of Penguin. Out of 270 hectares, 150 are planted to pyrethrum flowers, with plans to expand and likely plant the whole farm to pyrethrum in coming seasons.

This is not the Mundays' first foray into pyrethrum.

"I grew pyrethrum in the 1990s," says Scott, and since that first planting, he had been watching the pyrethrum industry from a distance. "When I first grew pyrethrum, it was planted as speedlings and we aimed for five plants to the square metre," he says. "Now with direct drilling, we aim for 50 to the square metre. Farming methods, disease and weed control and plant varieties have also improved dramatically – so the crop was looking very attractive."

With the less intensive irrigation regime required on pyrethrum compared to vegetable crops and the opportunity allowing the soil to rest between the vegetable cropping cycles, planting a large area to pyrethrum seemed an excellent proposition for the Munday farm.

In order to tend 150 hectares of pyrethrum, the Mundays have invested in infrastructure. "Getting sprays on at the right time is crucial for py, so we have bought a large capacity spray rig that allows us to cover the crop in the shortest time," says Scott. The farm has also invested in a fertiliser spreader that allows coverage of the full 150 hectares planted to pyrethrum in a few hours.

"Planting so much of our farm to pyrethrum and purchasing new machinery is a big commitment for us," says Scott. "We've gone in boots and all. We planted this pyrethrum in August 08 and we won't get a return until March 2010, so that means we have a lot of faith in the crop. But we're on course to make the same return on pyrethrum per hectare as with vegetables, and the work is less intense – both for the farmer and the soil – so it's something we're glad to put our faith into."

Scott Munday with his new spray rig.

BRA Farms - more hectares = more py = more people = sustainable growing business

Since the early days of pyrethrum growing in Tasmania, BRA has been increasing the land both that it leases and owns for its farming activities. In 2008, BRA leased six new farms in addition to previous land acquisitions.

"It's a good solution for some farmers wishing to semi-retire and stay on their land but with children not ready or willing to take on the farm - a worldwide trend," says BRA's Manager, Agricultural Businesses, Tim Groom. "And it's good for BRA in that it enables us to increase both our crop production and security of supply."

With leased land and BRA-owned Werrin Farms taken together, the company now controls over 500 hectares for pyrethrum growing and has plans to expand. "We have more potential farms for lease on the books," says Tim.

At Werrin Farms near Forth in BRA's pyrethrum growing heartland on the northwest Tasmanian coast, there has been a change of guard. The farm is now under the management of Phil Sharman, who has replaced Athol Gilham, who is retiring. Phil has worked on the farm since BRA purchased it in 2001, and for 14 years before that. The farm grows a similar crop profile to surrounding properties, rotating pyrethrum with vegetables, poppies and sheep – and it is also the site of BRA's experimental plantings of medicinal herbs and new pyrethrum varieties.

Phil Sharman - new Farm Manager at Werrin Farms.

"On this farm we have 53 hectares of pyrethrum," says Phil Sharman, "and with the expansion due to leased farms, we've needed more hands." To that end, the farm is now additionally staffed by new BRA employees Aiden Porter (TAFE Apprentice) and Richard Rand.

To support the expansion, there has also been investment in infrastructure: new linear and centre pivot irrigators now allow for efficient irrigation of pyrethrum crops with minimum labour – all of which increases BRA's advantage in pyrethrum growing in Tasmania.

Research & Development wins more grants

Helen Cole is undertaking an investigation of post-harvest losses of pyrethrins supported by a $90,000 HAL grant.

BRA has again secured substantial matching funding from the Australian Federal Government's Horticulture Australia Limited (HAL) for research and development activities. Research continues in three major areas: agronomy, plant breeding, and post harvest storage. For the agronomy project, BRA has secured almost one million dollars for a three year project to investigate improvements in weed and disease control.

The agronomy program also includes further research into plant physiology under Research Officer, Ashley van Essen, with the objective of determining the main parameters affecting yield. Increasing pyrethrin assays and improving plant resistance to fungal diseases is part of plant breeding trials being undertaken by Product Development Officer and BRA's plant breeder, Dr Kristin Groom. These trials have been run in conjunction with the Tasmanian Institute of Agricultural Research and the University of Tasmania's Dr Frank Hay and Dr Sarah Pethybridge (the latter now BRA's newest staff member.) A current grant application will likely support a new three year plant breeding trial from 2009.

Dr Helen Cole has also conducted a research project into pyrethrin stability in storage, backed by an initial $90,000 HAL grant. This project looks into the degree and method of pyrethrin degradation when harvested plant material is in storage, and how to prevent such losses. "During the 2008/2009 harvest we will be sampling crop material from the time it arrives at BRA until the extraction process," says Helen, "to identify how and where pyrethrins are lost."

Extraction plant re-opens to meet BRA's demand

With crop production burgeoning at BRA, additional extraction capacity was needed to process the harvested crop. Pyrethrins are extracted from pelletised plant material in a semi-batch hexane extraction process producing a pyrethrin-rich oleoresin for refining. When BRA was first formed, this step in the processing chain was performed by Davey Plant Extraction at Scottsdale in Tasmania's northeast. When BRA's own extraction plant on its Ulverstone site came on line in 2003, however, the Scottsdale plant's pyrethrum extraction operation was mothballed.

With increased crop being harvested from higher yields as well as the larger area planted to pyrethrum, further extraction capacity has become necessary.

"In 2008, BRA recommissioned Davey Plant Extraction to conduct hexane extraction once again," says BRA Operations Manager Matthew Greenhill. "Sixty 25 tonne truck loads of plant material will leave BRA's Ulverstone headquarters for Scottsdale during the 2009 extraction season," he explains. The extracted material will be returned to the Ulverstone plant for refining.

Davey Plant Extraction at Scottsdale

The re-opening of the Scottsdale link in the pyrethrum processing chain also has an additional rationale. In order to deliver product to northern hemisphere customers off-season in the northern winter, BRA now aims to complete all processing between January and June. "Using the Scottsdale plant will enable BRA both to increase our extraction capacity," says Matthew, "and make more deliveries to our customers in the months when the product is needed to manufacture insecticide preparations in the northern hemisphere.

Safety comes first

Denis Phipps receiving fire training as part of BRA's SAP

In 2004, BRA began a Safety Accountability Program (SAP) to allow it to comply with safety legislation and to make the company a safer workplace. In 2008, that program was stepped up a notch with another major SAP audit. The program brings BRA's safety work in line with the requirements of ISO accreditation AS 4804:1997 for OH&S Management Systems. "We also measure our performance in safety through time lost to injury," says Safety Committee Coordinator Matthew Greenhill, "and we have found that the number of incidents is now fairly low."

Behind all the spectacular spreads of white flowers that blanket BRA's Tasmanian growing areas in summer is a story that starts with some tiny seeds…..

(left): Trish Bourke with the new pyrethrum breeding seed, with potential to produce plants with a higher pyrethrum yield.
(above): The 2008 seed crop, ready to be planted in the field.

Millions of pyrethrum seedlings were once split and planted by hand. With improved technology, BRA pyrethrum seeds are now direct drilled…

Pyrethrum seed being sown by seed drill in the fertile krasnozem soils of Tasmania's north west coast.

To improve pyrethrin yield, a seedling trial is conducted each year. Once plants are fully grown they are assessed for characteristics including pyrethrin assay. The best plants are selected as parent plants and are used to establish a seed orchard for the next generation of seedling trials. Each cycle takes three years….

Young plants in the 2008 seedling trials.

Eighteen months after pyrethrin seeds are planted they are ready for their first harvest….

Pyrethrum fields in full flower in December 2008.

White daisies stretching to the horizon.

BRA's pyrethrum plantings are producing more flowers per square metre than ever before - that means more pyrethrum!

Pre-harvest, flowers from the growing area are assessed for flower maturity…

(left): BRA worker, Ted McCarthy, conducting a Flower Maturity Index to assess for timing of flower for cutting and harvest.

(right): Examing flowers for harvest readiness

Pre cutting and harvest, pyrethrum growing paddocks are also assessed from the air…

Pyrethrum paddocks at BRA's Werrin Farms.

This pyrethrum-growing farm at Don is part of the colourful agricultural landscape.

Bright white paddocks of pyrethrum stand out amongst Tasmania's fertile green fields.

When conditions are right and the flowers have reached perfect maturity – which determines the highest pyrethrins yield - pyrethrum is cut and windrowed and left to dry in the field until harvest…

Pyrethrum cutting and windrowing - the first step of the 2009 harvest.

The plant material is now harvested from the fields and brought back to BRA's Ulverstone plant where it is pelletised, undergoes hexane extraction to oleoresin stage, and is then refined to produce pale refined pyrethrins….

With the 2009 harvest now underway, BRA expects in excess of 7000 tonnes of plant material to be brought in from the fields.

Full steam ahead at harvest time!

Pyrethrum crosses Bass Strait….

Two hundred and forty kilometres of stormy seas separate Tasmania from the nearest part of the Australian mainland, Victoria, but this has been no barrier to the expansion of pyrethrum. With much of Tasmania's pyrethrum growing area at full capacity, BRA has been investigating growing pyrethrum in other parts of Australia. The fertile krasnozem soils in the farming area around the Victorian town of Ballarat have proved to be an attractive pyrethrum habitat.

Research trials were first conducted in the Ballarat area in 2002/2003. The trials were successful, but the growth of the pyrethrum industry at that time did not warrant new plantings on the Australian mainland.

Five years later, with world demand for pyrethrum increasing and BRA becoming the world's largest supplier, Victoria is set to become pyrethrum-growing country.

"In 2008 we held grower meetings in Ballarat where we canvassed Victorian growers," says Tim Groom, Manager, Agricultural Businesses. "BRA brought 9 growers down to Tasmania in December to meet local growers, see the Ulverstone plant, and learn more about pyrethrum." All those growers have now signed up to contract-grow pyrethrum for BRA.

BRA is aiming for a significant planting area of pyrethrum in the new growing area in 2009.

Growers in a pyrethrum field near Ballarat.

The project will be managed by Ballarat based Allan Reid under the watchful eye of the 2003 trial manager John Chilcott who will act in a liaison role between the Ballarat growing area and BRA's Tasmanian operations.

"The area around Ballarat is a major potato growing region, and we are hoping that pyrethrum will fit into the crop rotations there as it has fitted into rotations in Tasmania," says Tim.

The Ballarat operation will be the first time Australian pyrethrum growing has ventured commercially across Bass Strait and outside Tasmania – a milestone both for BRA and the global pyrethrum industry.

…and returns to Papua New Guinea

The highlands of Papua New Guinea (PNG) were once one of the world's important producers of pyrethrum. The crop was introduced there in the 1950s and up to 300 tonnes of flowers a year were being produced by the late 1980s. But since the pyrethrum extraction plant closed in 1995, the industry had all but disappeared.

In 2006, the Enga Provincial Government and the PNG Government approached BRA with the proposition that the company collaborate in the revival of the PNG industry. It was an unusual commercial proposal: assist pyrethrum growers in PNG's highlands to improve the quantity and quality of their crop – and then buy their pyrethrum.

"The government of PNG was looking for a new cash crop for the country's highland smallholders," says BRA's Manager of Planning and Logistics, Bill Casey, who is managing the BRA-PNG collaboration. "A lot of work had been done on pyrethrum a long time ago, but knowledge had since been lost." With the help of an Australian Federal Government grant through the Australian Centre for International Agricultural Research (ACIAR) and support from the PNG Federal Government, BRA agreed to assist in re-commercialising the industry.

The project began on the ground in 2007 with improvements to the Enga Province processing factory and a refurbishment of the plant laboratory. Production modelling and training of new extraction and field staff was also provided, as well as a major

Hand picking pyrethrum flowers.

investment in the infrastructure of the industry in this remote region: everything from R&D trials, seed production areas to a pickup truck to collect the flowers.

PNG's highlands are perfect pyrethrum-growing country. "Temperatures range from 22-24 degrees centigrade each day to a minimum of 14 degrees at night," says Bill Casey, "and it rains at 4.30 every afternoon – you can set your watch by it." The lack of seasonality means pyrethrum is picked year round. The flowers are hand harvested here - mainly by women and children.

"The industry has increased 30% since 2006," says Bill, "and eleven thousand people are now involved in growing pyrethrum in PNG. This is the only cash

crop that most families have, so growing pyrethrum allows small land holders to make money for basics: medicine, cooking oil, salt, and of course for their children's education."

In December 2008, BRA received the third shipment of oleoresin from PNG, and now has plans to work with the PNG government to build to new levels of production and processing in coming years.

"This collaboration has been good for BRA and for PNG," says Bill Casey. "It gives us a chance to be good corporate citizens, give PNG a viable agricultural industry which benefits some of its poorest farmers – and expands our access to pyrethrum oleoresin for refining …a win-win situation for us all."

A bag of pyrethrum weighs in at four kilograms.

A couple in their pyrethrum patch.

Solar drying of pyrethrum.

As part of the BRA-PNG collaboration, Kud Sitango, a research officer at the National Agricultural Research Institute in PNG, is undertaking a Masters degree in Agricultural Science at the University of Tasmania. Kud was awarded ACIAR's John Allwright Fellowship, and began research in July 2008 into the factors influencing the physiology and yield of pyrethrum plant. "We need to strengthen manpower and knowledge in PNG so that we can assist farmers to grow pyrethrum better," says Kud. "This research should help them to do that."

Kud Sitango at Werrin Farms.

Cleaner business for a healthier planet

When BRA looked at ways to minimise its environmental footprint, recycling and re-using some of its by-products was one of them. With the aid of a $40,000 grant from the State Government CleanBiz program, the company has installed a new bio-fuel burner on its boiler. The burner runs on a mix of conventional fuel oil and pyrethrum raffinate – helping to address by product utilisation from pyrethrum processing and also hydrocarbon fuel usage and costs.

Laboratory Manager, Maurice Kerr, shows CleanBiz Program Manager, Helen Peters, the new burner.

Processing infrastructure changes to handle expansion

The last two years have seen several changes and additions to the processing plant on BRA's Ulverstone site. With the recent expansion in the volume of pyrethrum being grown, extracted and refined, the plant has needed to grow in capacity and efficiency.

Perhaps the biggest single plant item ever installed at BRA is the so-called "Superbrat" - a new component in the hexane extraction process at Ulverstone. "BRAT is a BRA acronym," explains Helen Faber, BRA's Manager, Chemical Processes. "These vessels look a bit like dinosaurs, so we came up with the name BRA-tosaurus, which became Bratosaurus. This is the biggest 'brat' ever installed – hence Superbrat." The new Superbrat has been custom-designed for BRA's extraction plant and will extend the time that pellets of plant material are in hexane, resulting in better recovery of pyrethrins. The Superbrat is nine metres long and weighs 13 tonnes. Four cranes were needed to install it in November 2008. It will commence its first extraction season in 2009 and should prove its worth with increased throughput and superior extraction efficiency.

(above): The Superbrat being transported.
(below): The Superbrat being installed by cranes.

In the pelletiser plant, a new meal bin, new feed bins, a new bag house, new conditioners and four new motors are the result of a pelletiser upgrade. "These improvements have helped to make pelletising more efficient and simplified," says Harvest Maintenance Supervisor Glenn Molendyk, "and they also mean less work time is lost dealing with blockages – allowing us to pelletise more plant material more quickly."

Glen Molendyk with pellets from the newly improved pelletiser.

Work on the refinery shed has culminated in a seven metre extension which will house a new electrical control room for the refinery. The extension is designed to provide more storage space as well as to allow for an enlargement of the refinery itself. "We have plans to extend the refinery in the future - maybe even duplicate it to double capacity," says Helen Faber, "and this will allow us to fit new and existing parts of the refinery under one roof."

Refinery shed extension.

With all this development, more power has been needed at the Ulverstone site, and a new switch room has been a necessary addition. The additional power capacity means the refinery, enhanced extraction plant, upgraded pelletiser, and aeration fans can be run simultaneously, with excess capacity to support future expansion.

Manager, Chemical Processes, Helen Faber, in the existing switch room.

BRA delegation goes to China

In 2004, during the build up to the 2008 Beijing Olympics, BRA decided to institute its own 'Pyrethrum Olympics'. The competition was held over four harvests with the winners being the three Tasmanian growers who had produced the top yielding crops over that period. The prize was a study tour to China to investigate the pyrethrum industry growing in that country.
In 2008, a group of BRA staff, the prize-winning growers, and additional growers who had provided their own funding to join the study tour, left Tasmania for Kunming in Yunnan Province, southwest China. The study tour was funded by BRA with the help of a Horticulture Australia Limited grant under the current Industry Development Project, with the objective of broadening grower understanding of the international market, heightening knowledge-sharing between national pyrethrum industries, and to increasing grower commitment to the industry.

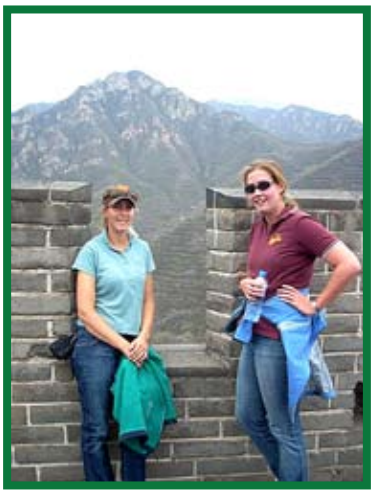
2008 China Trip Report *by delegate and BRA Field Officer Jess Keenan*

Pyrethrum was first noted to kill insects in China during the Chou Dynasty of 800 BC.

Over centuries, the flower was traded along the Silk Route into Europe. The crop was re-introduced into China towards the end of the 20th century and in recent years, China has aimed to develop into a major growing base.
On March 31st, a group of 14 growers and BRA staff headed off on a journey through China. We spent just over two weeks travelling, starting in the southwestern province of Yunnan, and wound our way by bus, train and plane to the northern destination of Beijing. Tim Groom, Pip Loone and I represented BRA, while the rest of the group included the Shadbolt family (North Motton), Pethybridges (Penguin), Nicholls (Sassafras), Richard Clingeleffer (Elliott) and the three young farmers who won travel scholarships from BRA - Leigh Sharman (Kindred), Rob Wade (Table Cape) and Ben Wilson (Wesley Vale).
China is a large country and as we passed through the provinces, the landscapes, cultures, industries, crops, traditions and food constantly changed, influenced by the many different minority groups.
As we flew over Kunming, we noticed what we thought were large bodies of water. We discovered these were 1000s of hectares of greenhouses. The southern areas were typically terrace-farmed. Here the peasants prepare their land manually, picking away slowly at rocky hills. We were hard pressed to see a tractor working in the south, even as we drove past miles and miles of canola flowering in the valleys and on terraces. In the central areas we saw buffalo and horses pulling implements, especially in the tea plantation areas. The north had more broad-acre operations, producing wheat on a large scale. A typical-sized farm is 1 mu, which is equivalent to a 1/15th of a hectare, and is all many farming families have to live off. The farmers face similar challenges to Australian farmers – drier seasons, and as China develops, the cities continue to offer better employment opportunities, the result being farmers' children moving to the cities to work, leaving labour shortages in the rural areas.
We visited a variety of vegetable companies, government research centres, companies manufacturing and exporting various agricultural products and of course, China's pyrethrum-growing area.

Meeting in a Chinese pyrethrum field are : (l-r): Richard Clingeleffer (BRA pyrethrum grower), Tim Groom (BRA Manager Agricultural Businesses), Mr Hong Li (Officer of the local Agricultural Bureau), David Wang {General Manager of the local Chinese pyrethrum company), Melanie Yan (Technical Director of the local Chinese pyrethrum company.

As with most crops, no mechanisation is used at any stage of pyrethrum production here. Pyrethrum is planted as seedlings and harvested by hand. The crop is planted in October with a density of four plants per square metre. Yield is an average of one tonne of dried flowers per hectare with an assay of 1.2-1.3%. Pyrethrum is grown as an annual crop, usually in rotation with tobacco.
A balance of official meetings was interwoven with visits to tourist/ cultural attractions. Highlights included the Terracotta Warriors in Xian, the Great Wall near Beijing and the Forbidden City. The scale and age of some of these places and traditions amazed us all, and we really did manage to immerse ourselves in the culture.
The delegates shared in a fascinating two weeks in a diverse country, and brought back many new ideas – not just about pyrethrum.



(l-r): Jess Keenan and Pip Loone - two of BRA's Field Officers- enjoying the view from the Great Wall of China.

It was an intriguing journey, we learnt so much and are appreciative of being able to see how the other side of the world farms and exists.

BRA Manager Agricultural Businesses, Tim Groom, doesn't seem quite sure about the exotic Chinese kebab that he is sampling!

BRA goes on growing

There's no better evidence of the way in which BRA is flourishing than simple growth in numbers. Eleven new staff members have joined BRA in the past 18 months. Much of the increase has been in the Field Production sphere with four new field officers and two new farm staff at BRA's Werrin Farms. We introduce them here:

Pip Loone, Field officer

A recent graduate of the University of Tasmania in Agricultural Science with honours, Pip joined BRA in July 2007.

Jess Keenan, Field officer

After working in the sweltering heat on a remote gold mine in the Northern Territory, the sweet fields of Tasmania are now Jess' preferred habitat Jess joined BRA in June 2007.

Simon Wilson, Field officer

Simon began work with BRA in August 2008 with a background in crop science for Bayer Crop Science in Tasmania; and Mt Gambier and Horsham in Victoria.

Robyn Bergersen, Field officer

Having worked previously as an agronomist with Agronico in many of the same parts of Tasmania, Robyn was well known to growers and BRA staff alike when she joined the company in July 2008.

Colin Lawrence, Lab Technician

Colin Joined BRA in June 2008 having worked as a lecturer in Chemistry at the University of Tasmania in Launceston and also as a chemist in the Tasmanian wine industry. Colin replaced Dawn Studd who retired after nearly 19 years at BRA.

Richard Rand, Farm assistant

Richard joined BRA in December 2008 as a farm assistant on Werrin Farms. Prior to this, Richard had been an apprentice baker and is reputed to make a very fine vanilla slice.

Aiden Porter, Farm assistant and TAFE apprentice

Before joining BRA, Aiden worked as a casual employee with Premium Fresh, assisting on carrot harvesting. He joined BRA as farm assistant at Werrin Farms in August 2008.

John Chilcott , Consultant, Ballarat

John worked for BRA as a senior field officer for many years, and was responsible for the early field trials in the Ballarat area. John now comes out of retirement to manage the Ballarat growing region for BRA.

Allan Reid, Area Manager, Ballarat

New in the Ballarat growing area is Allan Reid. He has previously worked as a consultant for BRA and joined the company as Area Manager, Ballarat, in January 2009.

Dr Sarah Pethybridge, Research Coordinator

Dr Sarah Pethybridge joins BRA in February 2009 as Research Coordinator. Sarah was previously a Senior Research Fellow in Plant Pathology at the Tasmanian Institute of Agricultural Research, University of Tasmania, where she worked extensively on pyrethrum diseases and supervised BRA-sponsored PhD students working on pyrethrum.

Robin Tait, Research Officer

Robin joins BRA in March 2009 to work in research and development. Her previous role was with Agronico where most of her time was spent on potato research.

A new crop thrives at BRA

The 2008 season has also seen a bumper crop of…..BRA babies.

The Baby Tsunami began with the birth of a son, Charlie, to Dwayne Strochnetter and his fiancée Jessica on that unforgettable date – September 11th.

Charlie Strochnetter

Next off the rank was Luke Raspin – the first child of Mark Raspin and his wife Corina, born on October 18th.

Mark Raspin with son, Luke.

Stuart and Carleen Coles were next in line with their fourth child, baby Dustin, born November 20th.

Stuart Coles with son, Dustin.

And there was soon a second sleepless dad in the BRA laboratory when Colin Lawrence and wife Claire welcomed their second child Amadea, born on November 28th.

Colin Lawrence with daughter, Amadea.

The newest of the new crop was an early Christmas present for Ashley and Rebecca van Essen, when their second son James was born on December 7th.

James van Essen

Congratulations to all the new BRA Dads!

A Quiet Achiever

With the rapid and sustained growth by BRA in recent years, there has been considerably more work for the BRA Finance and administration staff, from Human resource matters to more externally funded R&D projects, larger budgets and more invoice payments. Tania Butterworth who has responsibilities for payments to our creditors and casual staff is a typical BRA "Quiet Achiever".

PY 13 01/09

PYLINES
www.botanicalra.com.au

Articles written & many photos taken by Gabi Mocatta

Layout & editing by Lou-anne Folder

Botanical Resources
AUSTRALIA
ACN 072 872 201
8 Gregory Street, Sandy Bay, Tasmania 7005 Australia