



Botanical Resources Australia Pty Ltd  
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# Reflections on the First Decade & Directions for the Future



April 2007

## PYLINES

NEWSLETTER  
OF THE AUSTRALIAN  
PYRETHRUM INDUSTRY



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**BRA has completed its first decade – and it's been an exciting ride. We come from beginnings as a small group of committed people who once identified a unique opportunity. Over the years we've become a larger group which has met challenge after challenge. As we've built the pyrethrum industry in Tasmania and sold Tasmanian pyrethrum to the world, we've surmounted obstacles with innovative solutions over and over.**



Ian Folder - Managing Director BRA

We have been lucky to have the support of customers who believed in us, and we've been fortunate to have been able to build long-term relationships at every level of the industry.

Most importantly of all, BRA's successful first decade has been a heroic team effort. Looking to the future, our challenge is to meet and exceed the expectations of our customers. To achieve this, we'll execute some exciting changes in both the production and market development of pyrethrum and pyrethrum-based products.

In the next five years, we aim to increase our sales by 25 to 30%, and in the next decade

we predict a 65% production increase over present levels.

Meanwhile, development of BRA's other botanicals is still clearly within the company's sights, with excellent agronomic success in the development of echinacea, as well as promising progress on the development of the antimalarial plant, artemisia.

We'll continue to work with our strong blend of R&D and solid production techniques, backed by effective marketing, and staffed by an incomparable team, to deliver the success that's come to be expected of BRA – over the next decade and well into the future.

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### Tasmanian grower sets new world record yield



Above: Ruth and Tony Shadbolt share their delight in their high yielding crop, pictured on right.

A nine-year-old record for the highest yielding pyrethrum crop ever achieved was smashed this year by growers Tony and Ruth Shadbolt at North Motton near Ulverstone. The Shadbolts' crop yielded 87.1 kg pyrethrins per hectare, more than double the industry average.

BRA field officer Ian Charleston puts the result down to getting all the key ingredients just right. "There was good plant establishment, good weed and disease control, and irrigation at the right time in the spring," says Ian. "The crop received five irrigation applications of 25 mm between September and early December."

Grower Tony Shadbolt says he also made an extra effort to clean up any escaped weeds so they did not go to seed to cause problems in subsequent harvests. "We did some hand weeding as well as boom spray herbicide application," says Tony. "I'm over the

moon. This is an unbelievable result."

Manager Agricultural Businesses for BRA, Tim Groom, is also delighted with the record. "This is a fantastic result in a very difficult growing season, and it's a record we've been chasing for some time," he says. "Research and development, combined with the careful management as demonstrated by the Shadbolts, has proven that the current average crop yield had huge room for further improvements."

The previous world record pyrethrum yield was in fact broken twice in the 2007 harvest, with growers Johan and Natalie Wolfert of Kindred also passing the previous world mark.

Tim Groom says that research and development has been strongly supported by BRA and its growers, with the valuable financial assistance of Horticulture Australia Ltd.

## Field Production

The world record beating yield by Tony Shadbolt in the 2007 harvest was no fluke. Years of consistent focus on pyrethrum field production and yield maximisation have culminated in results like this. It's a long way from the early days of pyrethrum in Tasmania.



Megan and John Hill

John Hill, one of the pyrethrum industry's pioneers remembers: "We worked with the early tissue stock, growing pyrethrum plants and multiplying them here." John was first involved with pyrethrum in the days of CIG, when for several years, he grew an annual 20 million pyrethrum seedlings at his business, Hills Transplants, near Devonport. "These were the days when there was a small empire of people working on pyrethrum splitting operations every season," says John. "It was one of the first attempts to develop an agricultural industry in Tasmania that was high value/low volume: we faced all sorts of difficulties, not least of them problems with disease control. But pyrethrum was a huge pleasure to be involved in, and a huge challenge at every turn."

Crucially, early trials conducted at Hills Transplants showed that pyrethrum yields, at least two and a half times average commercial yields were possible, and it was this finding that really kick-started pyrethrum growing in Tasmania. "This small trial provided me with the confidence to direct my efforts towards maximising the yield of our existing plant material," remembers Ian Folder, who was then Tasmanian Operations Manager with CIG Pyrethrum. "I used this plot as a reference point to both growers and CIG management to indicate what could be achieved."

The next milestone in field production was undoubtedly the development of direct drilling technology for pyrethrum crop establishment. Instrumental in developing direct drilling onto a commercial scale were Matthew Greenhill and Brian Chung and their team. This important development, made in 1997, dramatically reduced costs of getting the crop into the ground. "It was the key improvement

for increased yield and decreased crop establishment costs," says Brian.

In ensuing years, there were disease and weed management issues to overcome. Weed control for pyrethrum, especially for direct drilled crops, was a totally new challenge as there had been no work on this area of production anywhere in the world. Here, together with its own field production and research staff, BRA relied heavily on outside experts, like Julian Shaw and his team from Agronico, as well as Phil Frost and his colleagues from Serve-Ag. "Weed control was crucial," says Julian. "With our experience in onions, peas and beans, we were able to rapidly develop a herbicide weed control system. It took years, and we had a few weedy crops, but it was a huge success."

Diseases like sclerotinia and phoma were also a difficult obstacle in early days. Julian Shaw and Agronico were instrumental in helping identify the problem, while researchers like Frank Hays and Sarah

Pethybridge came up with solutions to disease problems.

Advances in the harvesting and crop handling formula, largely driven by the Manager of Planning and Logistics Bill Casey also meant that a well grown crop was being handled with increasing knowledge and skill at harvest. At present, Kristin Groom's plant breeding program is also in progress and will contribute to increased pyrethrum yields in the very near future.

For R&D to be able to make a difference in the field, important research findings have had to be implemented. Here, dedicated growers in conjunction with BRA's field staff have been the key. Field production staff like Stuart Coles, Ian Charleston, Denis Phipps and Mark Raspin have worked closely over the years with grower representatives like John Rich and Scott Langton. It's been an important symbiotic relationship, and one to which world-record breaking grower Tony Shadbolt can attest: "The model for pyrethrum growing has improved so dramatically over the years. We've have great guidance from the researchers, and all the people behind the scenes, and that's what has made it possible to start setting these records."



Stuart Coles