



Machinery on the ground floor of the pilot mill.

## Bread Research Institute » By Warren Beaumont.

Opportunity to increase the quality of organic grain products with state of the art facilities

**B**RI Australia (Bread Research Institute) is an independent, grain foods organisation that engages in research, training and services for the grains industry. It was acquired by the Grain Growers Association in March 2008, but the BRI is coming under pressure to make a commercial decision over the future of its operations in the first half of 2009.

Mr Mark Allison, the new BRI CEO, says the Australian grains industry is going through an unprecedented level of change at the moment and so too is BRI Australia. "Our products and services give companies the ability to make fast, accurate and reliable commercial decisions, based on a professional and commercially impartial supply of information," he says.

"The test and pilot scale facilities of BRI are world class capabilities that are substantially underutilised, but largely unknown beyond the very narrow research and development space where we have operated successfully for 50 years.

"There needs to be a greater awareness of the type of analytical and operational services BRI can offer to the organic

industry, and to start to explore the opportunities for growers to control their value chains through to consumers.

"The economics of agriculture are increasingly driven by scale, making it both very hard to compete, but opening opportunities as consumers get sick of the "sameness" of the corporate offering, and seek alternatives for a range of reasons.

Mr Allison believes there is an opportunity for the organic grain industry to increase the quality of grain products for human consumption through increased use of the pilot testing/specialty mill, which is fully certified organic and the associated pilot test bakery.

"It seems there is a natural fit between BRI capabilities and the development of the organic and specialist grains industry beyond a cottage stage," he says.

According to Mathew Rees of BRI's grain processing & flour milling, BRI Australia offers both a test and commercial scale mill (ie the BRI Pilot Mill) and associated research equipment, analytical testing laboratories, dough rheology laboratories, bakeries and Asian foods kitchens all on

the one site. "We use all of these facilities to conduct grains-related research, run training courses for growers to help them to better understand what happens downstream of their farms, help market Australian grain to international customers, and help food companies develop new products and manufacture products commercially," he says.

Mr Rees says the BRI Pilot Mill is a wheat mill designed with flexibility in mind that is large enough to produce product on a commercial scale but small enough to allow flexibility and experimentation. "This flexibility allows us to mill a range of other grains and pulses. For example we have milled rice, maize, mung beans, spelt, and durum," he says.

"Organic growers or manufacturers may be interested in contracting us to mill a smaller amount of grain for them, say anything from 1 to 50 Tonnes. We can produce flour, or semolina or grits, or new products for ingredients (eg a manufacturer may be interested in adding a powdered form of health food to their product, and using us to determine how fine the powder

should be, then produce that powder for them on a commercial scale). This flexibility has also assisted in the process of obtaining our various accreditations. We can set the mill up so that it meets organic, gluten-free or halal requirements."

## Industry comments on BRI's industry role

Laucke Flour Mills was the first commercial certified organic flour miller in Australia and its managing director Mark Laucke spent three months undergoing Industry-Scholarship provided training at the BRI 30 years ago - before the pilot mill was instituted.

"We have been using the BRI facilities for over 50 years. We are using its comprehensive test and pilot milling and baking facilities less now because our own facilities have grown and we do most testing in-house, and because BRI no longer performs flour milling industry sponsored evaluation and R&D" he says. "However, the BRI has excellent equipment and expertise, and an admirable support and service culture. The BRI's expertise is well recognised."

He says while a broad range of commercial work is performed, and proposed new grain varieties are sent to the BRI for end product quality evaluation such as for bread and noodle quality, the facilities are under utilised.

Mr Laucke's vision is for a whole of value chain forum to be held within an organisation that is focused on the entire grains process chain and which could see the grains foods industry players gather and elect to employ R&D funds for appropriate processing and value adding of grains based foods.

"Previously the R&D carried out by BRI for processing (wheat, flour milling, food manufacturing) was largely funded by levies collected through the AWB, the Bakers of Australia, and the Millers of Australia. Progressively, investment in BRI was scaled back when industry structures evolved, such as when AWB conceded total control of wheat in the early 1990's, and then eventually lost the right to control all wheat exports. The "industry good" functions formerly sponsored by AWB, Millers and Bakers must now find other funding mechanisms and control structures, or be, as they have been, progressively lost."

Mr Laucke points out that wheat variety evaluation paid for by the Grain Research Development Corporation (GRDC) is just a small part of R&D. "The problem is farmers guiding GRDC investment projects don't see their role as extending past the farm

gate because they tend to be focused on primary production, and existing industry representative structures inhibit viewing the 'grains industry' as a 'grains foods industry'.

"Without investing in R&D right along the process chain, producers are not effectively looking after theirs or anyone's interests. The grains market doesn't stop at the farm gate. It is driven by meeting the needs of consumers.

"The food processing that occurs in Australia is very indicative of the processes that apply to exported grain. The foods produced are very similar. Therefore, even though the majority of Australian grain is exported, information and consensus gained domestically within Australia from a grains foods value chain approach is vital to secure future opportunities for grain producers and processors within Australia.

"The various players in the grains industries must stop working in isolation. We need an organisational structure where all people can go to identify and distill their needs, to deal with issues, and to gain consensus where possible on all matters, especially 'industry good' functions such as R&D and funding. Then we need to be able to represent our needs to government with one voice."

Kialla Pure Foods of Greenmount, near Toowoomba, Queensland, mills only 100% certified GMO-free organic cereal grains. Managing director Quentin Kennedy says the company has used the BRI facility for basic protein testing to obtain more accurate testing and calibrates its machinery against that. "We have also sent whole grain samples for testing and had clients' flour analysed such as when specks were found for third party assessment," he says.

Mr Kennedy says Kialla is an organic flour mill and he does not believe organic grain mills will generally send milled grain for research or testing. "We will do it for our own benefit, or send it to the BRI if there is an issue, but it takes two days to get to Sydney by Express Post and therefore takes a week to get a result," he says. "We can get a quicker result in Brisbane and would utilise the BRI's facility more if it were Brisbane based."

"We need to know if ash is in the flour and do our own testing for this since installing a new filter into our infra-red analyser," he says. "It would be a shame to see the BRI facility go and while I believe most flour millers would be aware of this, it may not hurt to publicise the BRI a bit more."

Fine Breads of Australia are makers of organic, wholemeal sourdough and rye-based breads. Its production manager Wolfgang Ammaschell says the company does its own R&D testing and in-house baking for new

BRI pilot mill on the right.



products, but has used the BRI pilot testing facilities three times in 20 years.

"Now all the flour millers and ingredients suppliers offer assistance in product development," he says. "We are a major supplier to Aldi and we have to use their testing company. The fact is most large retailers and flour millers have in-house testing and analytical services and it's quicker to get results, such as for HACCP programs." Mr Ammaschell believes the BRI may not have kept up with trends in costs and turnaround for testing nutritional panels for a loaf of bread that now only costs \$280 in the market.

Bill Roberts of bread maker Bill's Organic Breads has used the BRI many times but now has its own system in place to test bread for nutritional content. "We buy from a stone ground flour mill that provides a quality product and it is not viable to send products off to the BRI for testing," he says.

Major brand bread manufacturer Goodman Fielder Limited uses the Pilot Bakery on a casual basis but says it has no need for use of the Pilot Mill as it is not a flour miller. Goodman Fielder expects its level of use of the bakery in the coming year would be about the same as last year.

Melbourne-based Table of Plenty Creative Foods launched muesli bread this year made from traditional grains. Director Kate Weiss says she was not aware of the facility and will be interested in learning more about it. While she is not sure if the company will move to organic breads, the company is always looking at new product development. "If we don't want to tie up our machines and facilities, the BRI would definitely be of interest," she says.

The BRI wishes to raise awareness of the type of analytical and operational services it can offer to the organic industry, and to start to explore the opportunities for growers to control their value chains through to consumers.

To enquire about BRI's services please contact ph 02 9888 9600; E: [contact@bri.com.au](mailto:contact@bri.com.au); [www.bri.com.au](http://www.bri.com.au).