

# Improving Australians' health with BARLEYmax™

Impact Case Study

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## Natural wholegrain's superior health benefits can help combat cardiovascular disease, Type 2 diabetes and colorectal cancer

### the challenge

Chronic diseases are a heavy burden on Australia's economy and well-being. Obesity, heart disease, stroke, type 2 diabetes and cancer are the leading causes of preventable death. Obesity alone cost Australian society and governments

over \$58 billion in 2008<sup>1</sup>.

Australia needs practical, effective diet and lifestyle solutions that can help reduce the burden of these chronic diseases. Increased wholegrain intake has been shown to reduce the risk of certain cancers, heart disease, diabetes, stroke and even help with weight control.

CSIRO scientists have seen the potential to enhance the nutritional value of wholegrains, like barley, to help combat these health problems.

### the response

CSIRO has long been interested in barley as a grain with human health benefits. One particular barley grain emerged from research as having higher fibre content and enhanced nutritional benefits compared with regular barley. A program of

conventional plant breeding led to the development of BARLEYmax™, a natural, high fibre wholegrain with high levels of resistant starch.

An extensive program of experimental studies, including a number of human trials, showed that a range of foods produced with BARLEYmax™ as their key ingredient had a low glycemic index and also produced positive changes in a range of biomarkers of bowel health.

### the engagement

In a joint venture with Australian Capital Ventures Ltd, CSIRO bred the new BARLEYmax™ grain, then worked with food manufacturers to create products containing BARLEYmax™, including breakfast cereals, food wraps, rice mixes, and bread. Consumers have been able to enjoy the benefits of foods containing BARLEYmax™ since August 2009.

### the impact

The potential value of improved health outcomes for Australians from widespread, regular consumption of BARLEYmax™ is estimated to be worth approximately \$305 million<sup>2</sup> per year due to its potential for lowering rates of Type II diabetes,

cardiovascular disease and colorectal cancer.

In addition, the total savings in health system costs from increased dietary fibre intake are forecast at up to \$17 million per year<sup>3</sup>. BARLEYmax™ also benefits grain growers, through additional earnings from guaranteed prices for barley and diversification of farm business models.

<sup>1</sup> Access Economics, 2008. 'The growing cost of obesity'.

<sup>2,3</sup> Deloitte Access Economics. 2014. Evaluation of CSIRO's research impacts – Impact Case Studies



FOR FURTHER INFORMATION  
CSIRO Plant Industry  
Phil Larkin  
Research Program Leader

t +61 2 6246 5060  
e Philip.Larkin@csiro.au

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