

High Amylose Wheat

A wheat with ten times more fibre has been developed by an international team that includes CSIRO

The Challenge

Western diets are largely lacking in resistant starch, which is known to improve digestive health, protect against the genetic damage that precedes bowel cancer and help combat Type 2 diabetes.

Resistant starch is a type of dietary fibre that feeds the 'good bacteria' that live in our large bowel. These bacteria are part of our microbiome. They can use resistant starch as food because it resists digestion in our small intestine and moves on to the large bowel.



Arista Cereal Technologies

In 2006, CSIRO teamed up with French company Limagrain Céréales Ingrédients and the Grains Research and Development Corporation to work on developing wheat varieties with higher contents of amylose and resistant starch. Together we spun out a company called Arista Cereal Technologies Pty Ltd.

A wheat with high levels of resistant starch: how we developed?

- Our first breakthrough came when we identified two particular enzymes, that when reduced in wheat, increased the amylose content.
- Conventional breeding work then enabled CSIRO scientists to increase the amylose content of wheat grain from around 20 or 30 per cent to an unprecedented 85 per cent.

Our wheat can provide millions of people with a lot more fibre without having to change their eating habits

First Commercialisation in the US

US-based Bay State Milling Company is the first company to take this technology to the market in 2018 as HealthSense™ high fiber wheat flour.

In Australia, discussions are underway with milling and food companies to take the technology to Australian markets

Arista is working with a breeding company in Australia to develop high amylose wheat varieties suitable for different growing regions

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EXTRAORDINARY EVERY DAY

We innovate for tomorrow and help improve today – for our customers, all Australians and the world.
We imagine. We collaborate. We innovate.



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