

Food Safety and Innovation

Food Innovation Subprogram

SOUTH
AUSTRALIAN
RESEARCH &
DEVELOPMENT
INSTITUTE
PIRSA

The Food Innovation Subprogram is located at the Waite Institute, which is the state's premier precinct for food research. The facilities include analytical and sensory laboratories, a new product development kitchen along with small-scale packaging and processing equipment.

The primary objectives of the subprogram are to provide technical support and assistance to food businesses to improve product quality, increasing the competitive advantage of existing food industries.

Food technology service:

Under a state Government funding arrangement, South Australian food businesses have access to a food technology service to facilitate innovation and solve minor technical issues. Fee-for-service work in each of the above areas for larger projects and for non-South Australian food businesses is also available.

Program capabilities:

New product development – Advice on ingredient selection, chemical and microbiological testing requirements and evaluation of the final product.

Sensory and consumer acceptability – Independent and unbiased evaluation of products to support new product development, changes in product composition and shelf-life assessment. Focus groups, consumer/market surveys, sensory evaluation and consumer acceptance testing are used.

Cold chain technologies – Evaluation of new cooling technologies to optimise product quality; cold chain simulation; analytical testing and predictive microbiology.

Food processing – Optimisation of processes for increased productivity and cost reduction. Evaluation of food businesses and provision of alternate processing solutions.

Market access/value-adding – Evaluation of the food safety impact of production systems in relation to existing standards and levels of competitors.

Packaging – Determination of appropriate packaging solutions to maintain product quality and extend shelf-life. Application of novel technologies such as smart and active packaging.

Shelf-life assessment – Microbiological and biochemical shelf-life assessments to underpin date marking of packaged products.

Functional foods – Modification of processes and formulations to preserve biological activity of functional ingredients supported by sensory and analytical testing. Applications in minimally processed foods. Naturally functional foods based on cultivars of plants and breeds of animals with enhanced nutritional function. Novel applications of probiotic bacteria.

Lean manufacturing – Evaluation of novel processes and technologies to reduce food waste and assist in waste transformation from concept to test marketing. Modelling of material flow to streamline operations.

Quality control – Design of statistically valid protocols and analytical techniques. Validation of quality-based indicators to support premium products.



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