

# Les Hammond awarded the 2010 Loftus-Hills Gold Medal

Article by Ron Hull

CSIRO Alumnus, Les Hammond has been awarded the prestigious 2010 Loftus-Hills Gold Medal by the Dairy Industry Association of Australia (DIAA) for excellence in dairy research and technology.

The presentation was made at the annual DIAA Awards of Excellence Gala Dinner held at Melbourne's historic Plaza Ballroom on 20 May 2010.

The Loftus-Hills Award medal was instituted in 1976 to acknowledge a published article that makes a significant contribution to dairy science or technology.

## About Les Hammond: Research and Development career

Les originates from Warrnambool, his family well represented in the district as dairy and sheep farmers. Les attended Warrnambool Technical School learning the trades of engineering and draftsmanship, invaluable skills underlying his future career in dairy research and development. His first job was at Nestle Dennington dairy factory working in the Laboratory learning dairy bacteriology but also developing a keen interest in cheese making. He gained the Diploma in Dairy Technology at Gilbert Chandler Institute of Dairy Technology, Werribee in 1951 being distinguished as Dux of the class. During his undergraduate study Les was employed as assistant to Dr Joseph Czulak, the new CSIRO appointed dairy scientist commissioned to find solutions to the many problems facing the Australian dairy industry.

**CSIRO 1952- 1976.** The Second World War had thrust the Australian dairy industry into the spotlight. It went from a small conservative industry to the major supplier of food for front line Australian and British troops in Europe, and then American and Australian troops in the Asia-Pacific region, the latter exposing a raft of new problems for the current dairy products under tropical conditions. These included systems to greatly increase production volumes and control of spoilage.

Against this background the post war decades of 1950-1970 saw the CSIRO team of scientists in Melbourne make many world-first developments in dairy technology. In the field of cheese making were Dr Joe Czulak and his long time assistant and co-researcher Les Hammond. Some of their notable achievements were:

- a. **Starter Cultures;** in 1952 they applied the new technology of **freeze drying** to cheese starter cultures. This allowed for the first time shipping without refrigeration to factories throughout Australia and later around the world.
- b. In 1960 they significantly **shortened the time** of **Cheddar manufacture** through starter culture innovation. This method is still used throughout the World to



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(image provided by the Dairy Industry Association of Australia)

- produce bulk Cheddar cheese. In the 1960's it was referred to as the hot-shot starter and involves inclusion of a thermophilic strain in the culture.
- c. In the 1960's they introduced the first fully **mechanized Cheddar curd handling** system to completely replace manual curd handling and salting. These machines were known as the Bell-Siro Cheesemaker system made by Bell-Bryant and units were sold throughout the world wherever Cheddar-style was made including New Zealand, South Africa, USA, Canada, England Scotland and Ireland. The technology is still the heart of current machines.
  - d. There were **numerous patents and publications** in this period and by 1970 Les became recognized as **Australia's leading cheese technologist**.
  - e. It is said that the success of this work was due to the skill and dedication of the scientists involved and the use of the successful model for R& D of close **three way collaboration** between scientist with analytical skills, dairy manufacturers and machinery manufacturers.



[Les Hammond and Doug Eddy](#)

(image provided by the Dairy Industry Association of Australia)

#### **Australian Dairy Corporation 1976- 1988.**

As Australia moved from the traditional export market of Britain to other markets such as USA and Asia particularly Japan, new problems were arising for cheese exports. This was co-coordinated by the technical department of the Australian Dairy Corporation, headed by Dr Norman Snow and assisted by Les Hammond. This period saw Australia rise to be the number one preferred supplier to Japan and Les, as well as becoming well traveled internationally, played a key role in many technical developments including the factory derived starter technology 1978 now used world wide.

**Les Hammond and Associates** – cheese consultants 1988- 2008. Over the last two decades Les has participated in many technical developments in bulk and specialty cheese manufacture in Australia and overseas. Many of the projects were supported by government funds. His work has assisted many cheese operators both in Australia and overseas with technical innovations that underpin their current operations.

Les has had a distinguished and productive career in cheese research and development, and possibly one of the longest, some 57 years, amongst Australian scientists. He is author to many publications and patents. Les has always shown huge dedication to the cheese industry with emphasis of achieving practical results. He is a worthy recipient of the DIAA Award of Excellence, the Loftus Hills Gold medal for his contribution to dairy research and development.

#### Related links:

Dairy Industry Association of Australia (<http://www.diaa.asn.au/>)

Loftus-Hills Award (<http://www.diaa.asn.au/about-us/medals-and-awards/89-loftus-hills-medal>)

DIAA 2010 Award Winners (<http://www.diaa.asn.au/about-us/medals-and-awards/medal-winners/58-2010-medal-winners>)