



# CSIRO Leather Research Centre closes after 40 years service to the industry

The CSIRO Leather Research Group commenced in 1965 under Peter Mason and with Jim Scroggie at the Parkville based Protein Chemistry laboratory. It moved to new dedicated laboratories at Clayton in 1991 as the Leather Research Centre under the leadership of Peter Gordon and later Catherine Money.

Australia began to see a dramatic downturn in the local finished leather industry during the 1990s as larger footwear companies either moved their operations offshore or closed. In addition there has been growing competition for hides and skins from emerging leather manufacturing countries in Asia forcing prices up and reducing the overall viability of making leather in Australia. This situation was not helped by the effects of droughts on stock numbers. The net result for the Leather Research Centre was that there has been a contraction in the number of leather manufacturers in Australia. Consequently the industry support base, including sources for funding, justifying research disappeared and CSIRO had no option but to close down its leather research in June 2005.

The group has had a highly successful research and commercial record stretching over 40 years with a number of high impact processes being adopted worldwide. It would be over whelming to recount the full research record but some mention of staff and key highlights include:

- Short and long term preservation methods developed by Catherine Money and Udo Adminis for hides and skins. This work is still being called upon today through Catherine Money who recently retired.
- Groundbreaking work was done to establish conditions for controlled forced air drying of leathers, by Ted Lhuede that became the basis for the commercial dryers used today.
- Direct chrome liquor recycling, first developed by Jim Scroggie, Margaret Davies and their team was a major step in reducing the environmental impact of tanneries. Later research, by Robin Cranston and others, demonstrated that it could be modified to recover more than 95% of chrome and almost all salts used in the tanning process.
- The pioneer Sirolime hair saving unhairing process, developed by Robin Cranston, Jim Scroggie and Margaret Davies, and its many subsequent variations, have been responsible for the survival of many tanneries faced with increasingly stringent effluent regulation. The recovered hair



*Jim Scroggie,  
leader of CSIRO from  
1972-1987*



*Peter Gordon,  
leader of CSIRO from  
1989-1999*

from the Sirolime process has been demonstrated to be an effective slow release fertiliser by Hume White and Jacinta Poole.

- Carbon Dioxide deliming was made a viable process by Hume White, Catherine Money, Jacinta Poole and Denny Karamoshos and adopted by many tanneries further reducing ammonia in effluent streams.
- The Siroskin process for tanning woolskins without felting was developed by Peter Gordon, Peter Waters and Udo Adminis and was a boost for processing long wool Merino skins.
- Australian Merino skins were shown to be useful on hospital beds to reduce pressure sores first by Tom Presley and later the Medical Sheepskin, developed by Ken Montgomery, Mark Hickey, Ray Reddie, Yen Truong and Jacinta Wassenberg proved able to withstand hospital laundering and was shown in clinical trials to be a highly effective tool to reduce pressure ulcer formation. This product is enjoying commercial success and is now recognised by clinicians for its benefits following a comprehensive clinical trial.
- A new and effective leather thickness measuring gauge, developed by Cameron Simpson and Robin Cranston, enabled significant yield savings to be made in leather manufacture.
- The development of waterproof leathers carried out by Louis Kyratzis, Mark Looney and Yen Truong that led to the development of a new generation combat boot for the Australian armed forces.
- A salt free system for pickling hides and skins developed by Peter Pojer and Chi Huynh.
- The development of effective procedures for improving the quality of kangaroo skins by Jacinta Poole.
- Improving the strength of kangaroo leathers by Mark Looney, Louis Kyratzis and Yen Truong.
- Improvements in crocodile processing by Stephen Hawkins and Chi Huynh
- Investigations on uses for hide collagen by various workers including (late) David Peters and John Ramshaw.
- Fundamental studies on the fatliquoring of leathers by Ray Reddie.

In addition to the research effort, the group was a central focus for the Australian industries meetings, seminars and conferences as well as playing hosts to an annual live in week of coursework for the Australian industry training course during which staff were called upon to lecture. The group was often invited to develop specialised courses for individual companies. From this close training relationship the CSIRO staff were recognised by generations of technicians or later managers and were welcomed in tanneries across the country.

The group, under an enthusiastic team led by Jim Scroggie, were organisers for the highly successful and innovative 1987

## CSIRO LEATHER RESEARCH CENTRE CLOSES AFTER 40 YEARS SERVICE TO THE INDUSTRY



*Leather Research Centre 2005, Back row from left, Louis Kyratzis, Robin Cranston, Yen Truong, Jacinta Poole, Chi Huynh, Cameron Simpson, Mark Hickey, Melanie Morcom, Jacinta Wassenberg, Front row from left, Rita Siekris, Ken Montgomery, Catherine Money, Udo Adminis, Peter Waters*

sister organisations around the world and the friendships that grew have endured.

Over the many years of operation the group was called upon as consultants in the development of new tanneries both in Australia and internationally; as trouble-shooters in leather manufacture; and were frequent advisors to government bodies, including the EPA and water authorities on regulation of waste.

It should be acknowledged that during the group's operation it was enthusiastically supported by the Australian tanning industry which allowed access to tanneries and made raw materials available for trials. The generosity of chemical supply companies, who freely supplied products for the research and industry trials, is also acknowledged. CSIRO is indebted to them for their support over the many years.

CSIRO still continues to provide leather and chemical testing services that have been essential to the Australian leather industries through the 40 years of operation. Although the research work has finished, the legacy of the research conducted by CSIRO Leather Research and its impact on the leather industries will be felt for many years.

IULTCS congress in Melbourne. The format and social success of that congress are still remembered by many attendees. The congress was the culmination of the very good relationships that the group enjoyed with

*World Leather is indebted to Robin Cranston for this review of the CSIRO Leather Research Group.*

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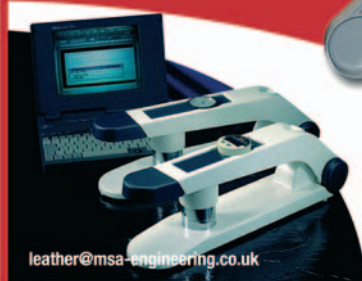
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