

# final report

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## Young guns training and development workshop 2010

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# 1 Introduction

Young Guns Training and Development Workshop 2010

Was conducted in Warwick

On the 18<sup>th</sup> 19<sup>th</sup> & 20<sup>th</sup> February 2010.

This program has been conducted over a period of 6 years, and continues to attract Queensland participants from processor groups, retail country butchers and registered training organizations.

The Young Guns program was established to provide personal and professional development to young people employed in the sector of the meat processing industry.

Participants are identified by their Employers, Trainers and Families as the next generation of managers and owners of the small country integrated meat businesses. Many participants are from Remote locations throughout Queensland.

Participants are encouraged to discuss and pursue extra skills and training.

AMPC, MLA and AMIC recognizes the ongoing need to develop structured career paths for meat industry participants at every level.

The three day workshop is designed to be active & hands on, with practical demonstrations encouraging and involving all participants.

Site visits were organized to small and large abattoirs and participants are encouraged in a class room session to discuss how they can improve processes

Monitor costs and environmental issues in their own workplace.

The workshop was conducted over a period of three days and was facilitated by Mr. Jeffrey Anderson from SQIT (Tafe) based in Toowoomba.

## 2 Agenda 18th -19th – 20th February 2010

**Warwick Motor Inn  
17-19 Albion Street Warwick  
Phone 07 4660 5600.**

<b>Young Guns Workshop Agenda</b>		
4.30pm – 6.00pm	18 <sup>th</sup> – Training Meeting and Material Distribution- The aim of the Humane Handling of Animals program will give each participant an understanding of how to apply practices of animal handling throughout the entire plant. (Cert 4 Level)	Glen Eckhardt SQIT
6.00 pm	Welcome and B.B.Q	Dudley Schilf QCMPA
7.00 am	Breakfast - Warwick Motor Inn	Gail Butler
7.45am	Bus Departs – Carey Bros Yangan	Greg Carey Yangan
8.30am	Carey Bros Abattoir Site Visit	Jeff Anderson
11.30 am	John Dee Abattoir Site Visit	Jeff Anderson
1.00 pm	Lunch- Warwick Motor Inn	Gail Butler
1.45 pm	AMPC Presentation	Irene Parker
2.00 pm	MLA Presentation	Kristine Garlinge
2.15pm	Don Lincoln – QCMPA Knowledge of Hide and Leather Workshop	Don Lincoln
3.15 pm	Knife Sharpening Workshop	Jeff Anderson
5.30 pm	Workshop Adjourned	Jeff Anderson
Bush Poet Marco Gliori  6.30 pm Dinner – Guest Speaker.		

<b>Young Guns Workshop Saturday, 20th February 2010 Agenda</b>		
8.00 am	Delivery and Assessment- Animal Welfare Module	Glen Eckhardt
10.00 am	Young Guns – Future Agenda	Jeff Anderson
11.00 am	Participants Reports	All participants
11.45	Final Close- Young Guns	Danny Gleeson
11.50	Presentation of Certificates	Dudley Schilf
<b>12.00 am</b>	<b>Lunch – Travel Home</b>	

### 3 Day One



## **Young Guns Training Program at Warwick 2010 Facilitator Glen Ekhardt (SQIT)**

There has been a strong focus in recent years by our overseas clients, domestic customers, animal liberation groups, Government regulators and the general public to ensure that animals at slaughtering premises throughout Australia are being treated and handled humanely.

Many customers are asking processor who on the plant has had the necessary training to ensure that these animal welfare needs and the requirements of the *National Animal Welfare Standards at livestock processing establishments* are being complied with.

It was decided that this type of program should be re-enforced with the domestic meat processing industry.

AMIC and SQIT delivered the Certificate IV training unit MTMMP48C Oversee Humane Handling of Animals

Students who successfully complete this unit would be able to address the concerns of plants having a person trained in animal welfare and develop a program for their premises in meeting the requirement of the Standards

(See attached assessment requirement for this unit).

### **4 Day Two**

#### **Assessment**

#### **Oversee Humane Handling of Animals - MTMMP84C**

For this unit of competency there are 3 parts to the assessment, all 3 parts must be completed successfully to be considered competent.

##### **Part 1 Written Assignment**

(a) Using the performance checklist in the National Animal Welfare Standard Working Manual for the 6 welfare standards which are;

1. Planning and contingency
2. Maintenance and design of equipment and facilities
3. Staff competency
4. Management of humane destruction of weak, ill or injured livestock
5. Management of livestock to minimize stress and injuries
6. Humane slaughter procedures

Conduct an assessment of how your premises and procedures for animal welfare meet the outcomes of the Australian Welfare Standards.

This completed checklist can then form the basis of your Animal Welfare program at your premises.

(b) Then with the findings obtained from your checklist, formulate a report of noted areas that do not meet the Standard's required outcomes. To do this report you may wish to use the attached form, or develop your own report format.

This report can then be given to your management for future use in demonstrating audit requirements for Animal Welfare.

**Part 2 Verbal /oral questioning**

To be conducted at your premises by SQIT after you have completed Part 1 at a time that suits all parties.

**Part 3 On-site verification**

To be conducted at your premises by SQIT after you have completed Part 1 at a time that suits all parties.

**Checklist for** \_\_\_\_\_

**Conducted By** \_\_\_\_\_

**Date** \_\_\_\_\_

Standard	Findings
E.g. 1.1 There is a quality policy that includes the establishment's commitment to animal welfare	The company doesn't have an animal welfare quality policy.

#### **4.1 Training Program-**

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18 students enrolled into this unit in-advance to arriving at the Young Guns program.

Workbooks and materials were issued on Thursday 18<sup>th</sup> February at 4.30 pm, and the initial modules were delivered to the group until 6.30pm.

The training involved two class room sessions (combined 4hrs) of power point presentations, class room interactive learning activities and brain storming exercises.

The presentation was well received both all students and it encouraged some very healthy debate.

The group was asked to nominate a completed date for the assessment activities to be completed, usually groups like this request a 10-12 week period, this group nominated a 5 week completion time.

SQIT looks forward to completing this program and assisting these premises address the National Standards requirements.

#### **4.2 Carey Bros, Abattoir Yangan, Site Visit**

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Carey bros have been operating on the Darling Downs since 1944 with an abattoir and retail butchering outlets at Warwick and Yangan. The plant mainly processes Beef & Sheep.

The abattoir has invested in Technology of manual handling processes, Humane Handling of Animals & Meat technology processes.

Carey Bros has earned a reputation for high quality products sold in a clean environment, and employ 60 staff.

Animal Handling techniques and improvement in the processes have been discussed and presented to the Young Guns Group in 2009.

Carey Bros invited the young Guns on site to view the facilities and to discuss the animal welfare standards that have been introduced by Carey Bros Management and Staff.

The tour was successful with participants being exposed to a variety of new technology and ideas which will now be discussed in detail at the next Young Guns Meeting in 2011



### 4.3 John Dee Pty Ltd- Warwick, Site visit

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A Meat Exporting company based in Warwick was established in 1939 by the Hart Family.

When export beef production started in Warwick in 1957 John Dee began the long tradition of total hygiene, strict quality control measures and fresh production.

Consistent monitoring of standards are maintained by AQIS the authority for Uniform Specifications for Meat and Livestock and by John Dees in house quality assurance monitoring.

400 Staff work at the John Dee plant.

John Dee regards the preparation of meat for Export as a vital responsibility and is committed to maintaining high standards of hygiene and health.

Many of the young Guns participants had never been exposed to a plant of this size and were exposed to a vertically integrated management system to maintain full control over production and the processing of grain feed beef.

*The John Dee plant, located in Warwick, Queensland, circa 1939.*

### 4.4 AMPC Presentation, Irene Parker

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Beef boning is an arduous job, prone to a whole range of injuries

Only a reduced fraction of the labour pool has the capacity to efficiently perform (typically strong, young males)

Even with that limited pool, injuries are common and long term exposure to this job may create permanent lesions

Automation may be a long term solution but not any time soon!

1. Development of a boning aid driven by 'local' provider with industry guidance (RTL puller)
2. Support to processor driven initiatives around low cost boning aids
3. Development of a smart assisted device with US provider - IADs or 'cobotics'

#### 1. RTL Puller

- In 2006 representatives from 5 meat processors (including Teys), MLA and RTL met in NZ
- The aim was to discuss opportunities to automate or semi-automate beef boning operations
- Two tasks were identified, aitch boning and knuckle pulling, as potential opportunities
- Although automation is the ultimate goal, a manually assisted approach was deemed more practical here

#### RTL Puller - 1st prototype

### RTL Puller - Final version



### RTL Puller - Benefit Analysis report

MLA commissioned an independent report (completed Feb 08):

- Average yield gain per head \$3.04
- Reduced injury rates (and associated claims)
- Increased labour pool
- Increased staff retention and job satisfaction
- Less staff turnover reduces training costs too
- Estimated payback < 6 months

### 2. Proman and Knuckle puller

- Teys pushed internally for two other systems
- Aitch boning: arm driven by mechanism built by Proman
- Knuckle puller: chain driven by pneumatic ram
- MLA has commissioned a comparison between systems

Aitch boning system - Proman

Knuckle puller

### 3. Cobotics

- In 2005 MLA contracted the ARC-CAS from UTS to identify organisations and companies working in this area
- The North Western University from Illinois, US, was identified as one of the leader researchers in this space

- They had significant experience in Intelligent Assisted Devices (IADs) for the automotive industry and the health sector
- In NWU they coined the 'Cobotics' concept
- IADs are based on three main points: Force amplification, transparency and virtual surfaces

**Assisted boning system: NWU - Kinea Design**

- MLA/AMPC contracted NWU-Kinea to design and build a beef boning IAD
- A group of Australian representatives visited NWU-Kinea and tested two proof-of-concept systems (fixed arm and cable) in October 2007
- The fixed arm concept was selected and first prototype was completed in July 08
- The system will be the base for a platform of boning (and possible slaughter?) technologies

**Assisted boning system:  
rigid arm prototype demonstration - Oct 07**



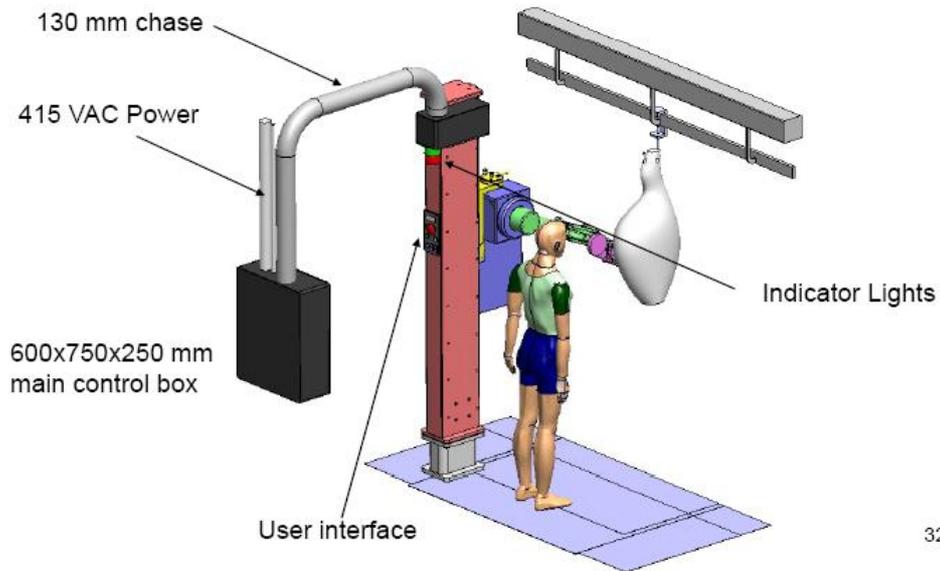
**Assisted boning system:  
Cable prototype demonstration - Oct 07**

**Assisted boning system: NWU - Kinea Design**

- The prototype was shipped to Australia and tested in a workshop in Melbourne in August 2008
- The workshop provided very valuable feedback from a wide range of industry participants
- The system was shipped to another plant in WA for further testing before being returned to the US

**Assisted boning system: NWU - Kinea Design**

- In the last 12 months Kinea has worked in a 2nd generation prototype
- John Hughes has provided technical guidance on monthly teleconferences
- October 28th 2009 there was a visit Kinea to test components and approve the design before manufacturing
- The new prototype is expected to be will be fully operational and installed for testing in a plant in 2010



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### **Boning aids: Current and Future initiatives**

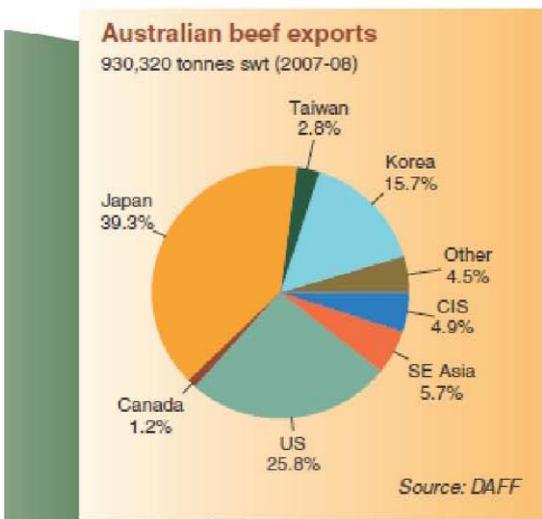
- The RTL puller is now in the commercialisation phase
- Future studies to evaluate OH&S benefits
- Upon successful evaluation in 2010, it is expected the Kinea system will be ready for commercialisation
- This is a sophisticated platform technology: we are looking for other application
- New RTL project underway to automate banjo removal. It may deliver an assisted device for scapula removal too
- Other initiatives for boning automation (backboner)

4.5 MLA Presentation, Kristine Garlinge

# MLA and Australia's red meat industry

World class services and solutions in partnership with industry and government

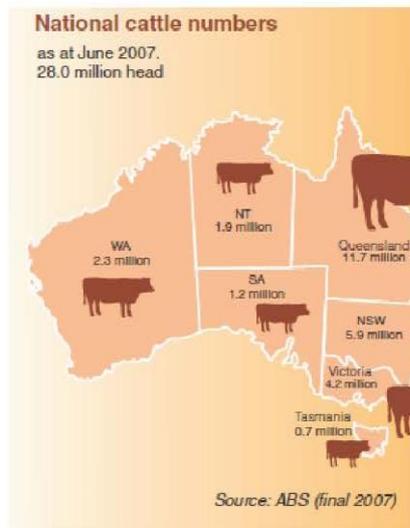
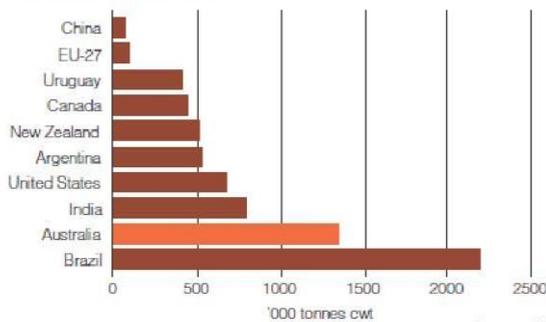
65% of production is exported to over 100 countries



## Beef Industry Overview

- \$11.6b industry
- Manages 43% of Aus land mass
- Employs 121,000 people
- Produce 2.2MT annually

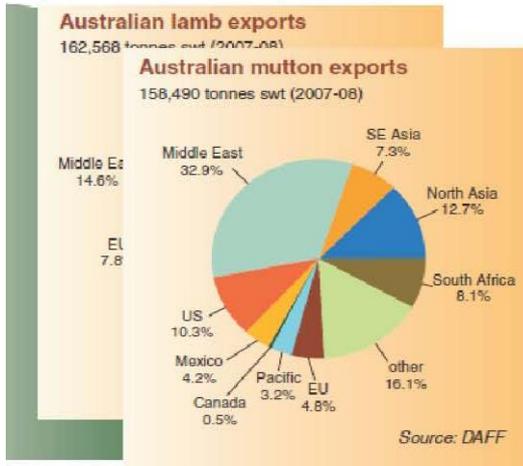
Top ten world beef exporters



45% of lamb, 77% of mutton production is exported

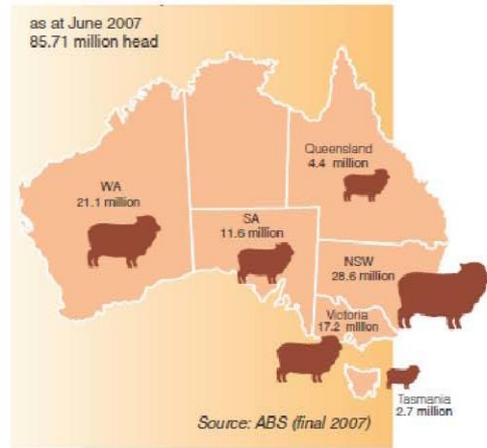
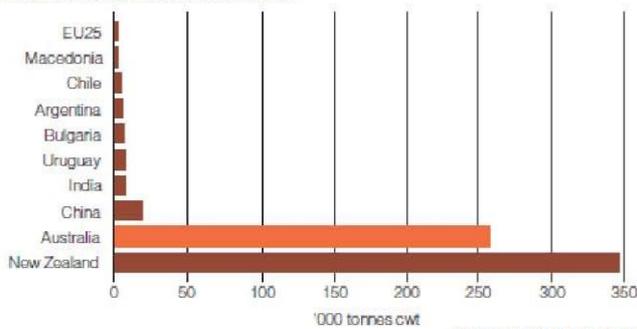
## Sheep Industry Overview

- \$4b industry
- Manages 17% of Aus land mass
- Employs 106,200 people
- Produce 693,900T annually

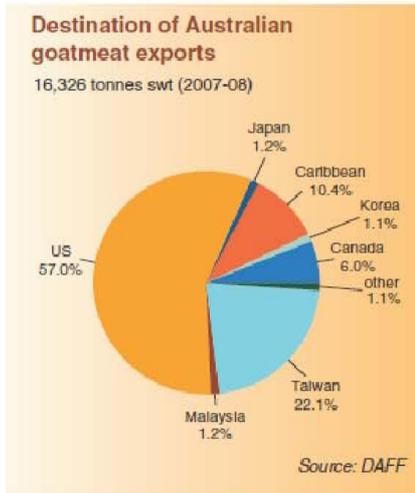


### Top ten world lamb and mutton exporters

NB: calculations do not include intra EU trade



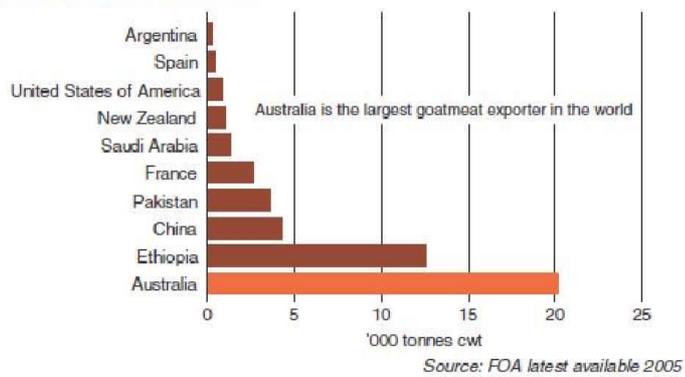
Australia is the world's largest exporter of goat meat



Goat Industry Overview

- \$55M export industry
- Most widely consumed meat in the world
- 991,000 head slaughtered annually

Top ten goatmeat exporters

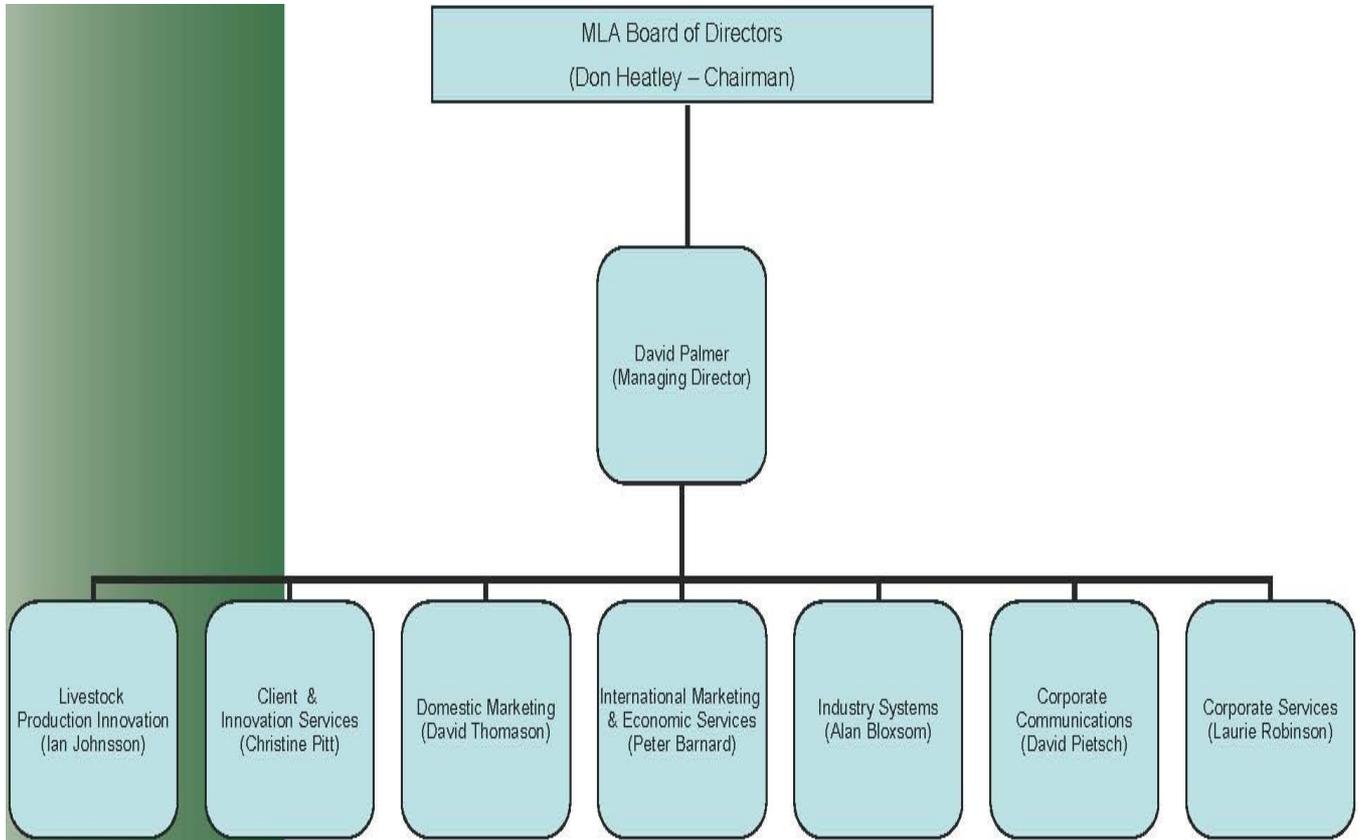


About MLA

- Who we are
  - Producer-owned company formed 1 July 1998
  - Provider of marketing and research services to Australia's red meat and livestock industry
- What we do
  - Increase market access
  - Grow demand
  - Enhance competitiveness and sustainability
  - Increase industry capability

**Our vision:** *A profitable, sustainable meat and livestock industry that meets consumer and community expectations*

## Corporate Structure



## Where we are located



With offices based strategically around the globe, MLA is able to leverage the best possible access to both stakeholders and markets.

## How is MLA funded?

- \$5.00 per head for grass and grain fed cattle
  - \$4.58 –MLA
  - \$0.92 –R&D (matched by C'wlth)
  - \$3.66 –marketing etc.
  - \$0.30 –Animal Health Australia
  - \$0.12 –Aust. National Residue Survey
  
- Sheep -2% of sale price (to a maximum of \$0.20)
- Lambs -2% of sale price (to a maximum of \$1.50)
- Goats -37.7c per head
- Joint programs with AMPC & Livecorp
- MLA Donor Company

## Increasing market access

- Enhancing product integrity
- Maintaining and liberalising access to world meat markets
- Maximising market options for producers and exporters in the livestock

export trade

## Growing demand

- We promote the quality, safety and nutritional value of Australian red meat both domestically and overseas by:
  - Improving eating
  - Enhancing red meat's nutritional reputation
  - Developing new products
  - Promoting industry integrity
  - Aggressive promotion in domestic and export markets

## Marketing - domestic

- Aggressive promotion in domestic market to strengthen consumer appeal for beef, sheep meat and goat meat based of 5 pillars of demand:
  - Integrity
  - Enjoyment
  - Nutrition
  - Convenience

- Value for Money

*Sam Kekovich returned for a fifth consecutive Australia Day campaign. In 2008, the campaign grew lamb servings to an average of 24.54 million serves per week. (Roy Morgan Research)*



- Red Meat Networking Club: raising standards of red meat, presentation, quality, merchandising, promotion

*The Red Networking Club which focuses on raising retail standards in the butchery sector grew its membership in 2007-08 by 15% to nearly 2,000, representing around 50% of Australian butchers.*



## Marketing -international

- Australia continues to be a dominant supplier of beef, goat & sheep meat to world markets
- International marketing efforts are vital in maintaining and expanding our red meat exports

*110 in-store merchandisers, jointly funded by MLA, Australian exporters, Korean importers and retailers, carried out more than 23,000 days of in-store sampling and shopper education in 750 retail stores in Korea, increasing Aussie beef sales by an average of 25% during promotions.*



## Enhancing competitiveness and sustainability

- MLA works to ensure long-term industry prosperity by:
  - Increasing cost efficiency and productivity –on-farm and off-farm
  - Improving industry and market information
  - Ensuring sustainability
  - Science for the future
  - Improving bio-security, animal health and welfare

## Increasing industry capability

- Rising to the challenge of capturing competitive advantage through innovation is critical for long-term health of economy and viability of rural communities
- MLA works to maintain the profitability, sustainability and competitiveness of our industry by:
  - Increasing adoption of R&D outcomes
  - Building world-class skills and innovation capability

## **4.6 Don Lincoln, Jalnic Pty Ltd**

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### **Knowledge of Hide and Leather Workshop**

#### **Curing of Hides and Skins: General Requirements**

##### **Introduction:**

One of the major factors in determining the quality and value of leather is the early treatment of hides and skins. IF there is a delay between removing the hide or skin from the carcass and the beginning of the curing process, damage can occur. Hides and skins can digest themselves through a process called autolysis and they are subject to bactericidal degeneration. Curing involves preservation by either salting or brining. Faulty curing results from the lack of uniform penetration of sufficient salt; however, other problems can arise if salt tolerant bacteria are present. These latter bacteria are controlled by additional preservatives.

“Green” processing is the conversion of unsalted hides to some form of part-processed stock at or near their source. Although green processing has many advantages in particular for wet blue tanning, about 50% of Australian hides are still salted for export.

##### **Delay before processing:**

Time and temperature are critical when “green” hides and skins are stored or transported before processing. Delay before either chilling or treating with chemicals preservatives result in damage which is variable depending upon the degree to which autolysis and bacterial action combine to cause degradation.

At temperatures above 20°C, there is a strong possibility that skins will degrade to some extent. For example, damage to the surface or grain of the final leather will sometimes result if untreated hides are stored at 25°C for one day. An unpreserved skin exposed to temperatures around 40°C for as little as five hours can actually disintegrate during further processing.

Hides and skins which are left in the sun, or freshly removed skins that are piled together, can easily achieve these high temperatures. Short term preservations (e.g. Cool Water) should be considered if a delay of more than a few hours is expected between removing the hide and its further processing.

##### **Salting**

##### **Comparison of Methods**

Brining in raceways or drums, and drum salting with no added water, are now widely used in Australia and are labour saving alternatives to conventional stack salting. Brining is most commonly on site at large export abattoirs but although there has been a tendency for purchasers to prefer this treatment, the simpler process of drum/stack salted hides is acceptable on overseas markets. Drum salting is now the major method for the curing of sheep, calf and kangaroo skins. In both brining and drum salting, the temperature should be kept below 30°C (preferably below 25°C) to prevent “brine draw” and dispersion of fat.

**For stack salting, the weight of salt should be approximately one third of the hide weight, for drum and brine curing approximately 20% of hide weight – is required, as there is less wastage. On our average ACMPA production this is around 8-10kg of salt for a hide and 1.5kg**

for a sheep skin. It is most important salt is applied to all parts of the flesh side, including the creased areas that are inevitable at the edges. During any method of salting, sodium chloride penetrates the skin. Some protein is removed and water is released as brine, the water remaining in the skin should be almost saturated with salt. Sufficient salt must be available to all areas of the flesh side of the skin for sufficient time to achieve the required salt uptake.

Dry salting of sheep skins is gaining popularity in Australia. It has been widely used in the Middle East because the preserved skins are not susceptible to heat damage. Skins are slightly salted and then are dried wither naturally or in controlled driers.

### **Degree of Cure**

Generally, a cured hide should contain less than 50% moisture and this moisture should be at least 85% saturated with salt, giving an ash to moisture ratio in the hide of 30:100. In the presence of effective additives which potentiate the action of the salt, an ash: moisture ratio of 27-29:100 can be acceptable, particularly if obtained immediately after curing. However, the aim of curing should be high salt levels.

### **Salt Additives**

The use of additional preservatives (additives) is strongly recommended for all salting methods. Their use is essential to prevent wool slip in sheep skins. The bacteria that cause the red discoloration known as "red heat" may not themselves cause hide damage, but hides cured in the absence of those additives can be contaminated with other bacteria which do cause damage, e.g. hair slip in hides and grain damage in resultant leather.

For drum or stack salting of hides, 1% sodium fluoride (NaF), plus 1% boric acid calculated as percentages of weight of salt used are additives which have been used successfully for hides, calf, goat and kangaroo skins. Sodium fluoride is a poison, and dust inhalation and skin or eye contact may cause irritation and should be avoided by the uses of proper protective equipment.

Salt additives for sheep and lamb skins: - Experience has shown that the following combinations have given good preservation results. 1% sodium fluoride plus 1% sodium metabisulphite, 1% sodium fluoride plus 0.5% boric acid



Example of controlling bacterial growth by Correct Chilling Procedures



Examples of defective Hides due to Knife Flays.

#### **4.7 Knife Sharpening Techniques, Presenter: Glen Eckhardt**

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Glen Eckhardt demonstrating the new equipment "The butchers Buddy" to Young Guns Participants

A practical application workshop allowed participants to use the machinery to sharpen knives and the training to use the machinery correctly.

The future agenda for the 2010 Young Guns will be presented to the QCMPA by Jeff Anderson at the AGM. The meeting will be in May 13<sup>th</sup> thru 15<sup>th</sup> and will be held in Townsville.

Certificates will be issued to all participants once the Animal Welfare module has been completed. Assessment will be finalized on site by Glen Eckhardt.

#### **Facilitators Report 2010 Young Guns – Jeff Anderson**

From a facilitators point I considered the workshop and combined program was successful and well received, with active participation by all attendees and presenters, further more, I believe the level of interaction and debate between participants, presenters, industry representatives throughout the workshop was very professional and achieved desired outcomes. The support, presentations and personal input by MLA (Kristine), AMPC (Irene), AMIC (Gail) plays a major roll in the overall successful outcomes, it is much appreciated that you make yourselves available for discussion with attendees who most likely would never get that opportunity to understand the wider version of our industry.

Following subdued debate initially, regarding the Young Guns future agenda a suggestion by Glen Eckhardt SQIT regarding the use of Ag college facilities that could be available through TAFE led to some positive discussion on how future events could unfold.

From a facilitators observation it is clear that participants attending the workshops can be divided into 2 groups, those that have been attending each year from the inception and those new to the industry.

While there is no doubting the genuine commitment of either group, it is becoming more apparent that the longer serving attendees are seeking some training in different areas; this is most likely in accordance with the roll they play in their respective businesses back home. (E.g. items like Food rations for lot fed cattle, feed lot applications, marketing, researching new markets were some mentioned)

On the other hand the more junior members are seeking new ideas and examples of upgrading the more practical of industry skills, perhaps not available in their home environment. (hands on use of Air knives, try before you buy approach, demonstration of techniques various species, and I would suggest we look at home grown talent within our own group to start with)

I consider this process as a positive indication the program is achieving its initial goals of individual development and looking to expand. However we should not dismiss the great personal development value for the junior and senior members provided through interaction between the participants during the course of the workshops. (learning from recognised peers, further development of roll models to enhance industry profile and career paths.)

My recommendation would be to keep the program going along its established lines, but incorporate a format of delivery items to cater for both senior and younger participants, simply by providing some options at the same workshop.

Finally this is my opportunity to acknowledge and thank the following people on behalf of the Young Guns:

Dan Gleeson and Dudley Schilf for providing their premises to film hide take off for both fresh chilled and salted hide presentations.

Corey Schilf for his presentation on better workplace practices adopted at Maclagan using simple locally developed appliances to improve the working environment.

Don Lincoln's Jalinc Hides presentation on preparation, handling and defects from processing premises to finished product (end user) aspect.

Finally many thanks to Carey Bros in particular Greg for his on-going and total support for all training and development within our domestic industry and finally congratulating Shaun on the industry award he received last year and the development roll he has played within the Young Guns program.

**The following YG 2010 Attendees Presentation Topics**

**Shaun Maggs          Careys**

Over View of dealing with the task of re-visiting processing skills to address hide take off defect while training new staff and retraining experience staff.

**Grant and Scott Frazer          Augathella**

Highlights of their observations form visiting Careys and John Dee, including techniques they will adapt to reduce existing hide take off defects (FQ Suspension in cradle as at Chinchilla)

**Ron Griener          Mundubbera**

Spoke on some of the policy and procedures adopted by John Dee and Carey Bros to address welfare issues within their processing plant.

**Ridge Harrison          Maclagan**

Provided an over view of Maclagan hide take off and practices adopted to reduce defects within that premises.

**Kelly Hegarty          Kuttabul**

Spoke on how some procedures adopted to address animal welfare concerns also benefited the management of animal stress (PH levels) prior to processing.

**Matthew Rassmussen          Esk**

Provided overview on adopted procedures to manage welfare issues for HALAL slaughtering