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# final report

Project Code: A.SCT.0011

Prepared by: MLA

Date published: 2007

PUBLISHED BY  
Meat and Livestock Australia Limited  
Locked Bag 991  
NORTH SYDNEY NSW 2059

## Next Generation Trim Packing Process Concepts

This is an MLA Donor Company funded project

Meat & Livestock Australia and the MLA Donor Company acknowledge the matching funds provided by the Australian Government to support the research and development detailed in this publication.

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## **Abstract**

These activities have informed further work in supply chain technology development. Refer to project A.TEC.0068. Also refer to P.PIP.0370 IFFA May 2013 for images of a fully automated naked block plant in Europe.

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## 1 Purpose and description

To work with Australian meat processing companies, MLA and Food Science Australia to conceptually develop and prepare a project proposal and brief for a conceptual Next Generation Trim Packing Process, that may include:

- Automated chemical lean analysis
- Automated trim blending to meet chemical lean parameters
- Automated block freezing
- Automated palletising and wrapping of naked blocks
- Working with Ian Eustace under Project PRTEC.036 to determine and document current on-line and at-line Chemical Lean analysis equipment and processes.

assist MLA in the development of a project concept including:

- working with processors to document current trim handling and packing requirements and opportunities for improvement;
- collect all relevant information from equipment suppliers on current technologies that may be available for use in the process solution;
- work with McDonald's Asia-Pacific Consortium Pty Ltd [Mac] to identify the product requirements and product path for American end use customers;
- work with MLA, FSA and Mac to identify regulatory requirements that must be met or altered to enable a successful process solution to provide trim to Mac customers;
- develop with MLA a conceptual layout of a possible process solution;
- work with MLA to promote the process solution to Australian processing companies and enroll their interest in participating in the R&D project to show a system operational;
- assist MLA in developing and budgeting proposed project and
- provide MLA with a monthly update on progress.

## 2 Activities

Develop a proposal that we can use to gain Australian processor support and encourage them to invest in developing a working demonstration and as such we have given ourselves 3 months to develop the required proposal and supporting documentation.

The types of building blocks (unit operations) that we are trying to gather information on are as follows:

1. Loose meat on the belt chemical lean estimation or determination for crude sorting
2. Material handling hoppers, valves, pumps, screw augers, divert gates etc
3. Freezing equipment – plate or preferably mould
4. If required frozen block cutters
5. Packing equipment for blocks onto pallets
6. Anything else that you may think we require

In the areas above , collect and compile as much information both written and video footage of possible solutions and ideas whether they are in our industry or not.

**THE NEXT STEPS**

After we have collected all the required/available information over the next 3 months, develop a proposal that we will take to Australia’s Beef processing sector to get engagement and investment in the concept.

**2.1 Data**

2004 January - June beef exports to the US

Sum of Ship Kg (F)	
Chemical Lean	Total
50	704,193
60	246,798
65	2,891,626
70	1,745,425
75	7,397,571
80	16,668,087
85	17,867,753
90	44,743,237
95	22,031,498
97	408,658
98	95,254
<b>Grand Total</b>	<b>114,800,100</b>

2005 January - June beef exports to the US

Sum of Ship Kg (F)	
Chemical Lean	Total
50	683,144
60	372,939
65	6,585,851
70	1,558,992
75	7,858,798

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80	9,682,872
85	16,214,753
90	29,049,930
93	276,314
95	11,556,338
97	152,320
98	56,440
Grand Total	84,048,689