

Completed R&D contracts for 2009-10 financial year

The following list contains non-confidential technical R&D contracts completed within the 2009-10 financial year. A number of administrative, confidential, operational or capital-related contracts have not been listed. Completed contracts may produce final technical reports which form part of the raw material used to develop innovations ready for end-users. MLA's value-add is to build the technical information in final reports into useful innovations and tools that are communicated to producers and processors through magazines, publications, websites, events, and on-farm or in-plant demonstrations. Where a non-confidential final report is available it may be accessed through the MLA website.

For further information please contact the Manager, Contract Services on 02 9463 9340 or reports@mla.com.au

Imperative: Increasing market access

– 1.1 Enhancing product integrity

AOP	Contract code	Contract title
1.1	A.RBP.0001	Technical advice: program establishment
1.1	A.MFS.0185	Shelf-life evaluation of sliced lamb shoulders
1.1	A.COM.0144	Bladestop technical review
1.1	A.GMO.0008	Meat and livestock gene technology e-bulletin 2008-2009
1.1	A.MFS.0123	Participation in the EU pathogenic escherichia coli Network
1.1	V.LQA.1001	AgriSure standards development
1.1	A.MFS.0196	Extended shelf-life evaluation of sliced lamb shoulders
1.1	A.MFS.0169	National microbiological database analysis tool
1.1	A.MFS.0188	Preparation of a publication on M paratuberculosis in meat
1.1	A.MFS.0166	Shelf-life of chilled vacuum-packed beef
1.1	V.NLI.1031	NLIS usability review
1.1	V.NLI.1032	NLIS image library
1.1	V.NLI.1051	NLIS sheep monitoring committee
1.1	V.LQH.0801	Operation of the LPA NVD 1800 hotline
1.1	A.MFS.0184	Food safety advisor
1.1	V.EVD.1001	Development & support of electronic declarations
1.1	V.LIM.1002	Telephone costs to support the LPA NVD 1800 hotline
1.1	V.LPA.2010	LPA NVD operating funds

1.1	V.NLI.1010	NLIS helpdesk
1.1	V.NLI.1020	NLIS technical support
1.1	V.NLI.1030	NLIS communications
1.1	V.NLI.1040	NLIS database development
1.1	V.NLI.1050	NLIS sheep
1.1	V.NLS.3002	NLIS saleyard scanning
1.1	V.SMA.1002	SAFEMEAT chair and secretariat
1.1	V.SMA.1004	Redevelopment of SAFEMEAT website
1.1	V.SMA.1006	NLIS status codes communications
1.1	A.MFS.0173	Food safety centre membership
1.1	A.MFS.0192	Participation in panel on practical control of listeria monocytogenes
1.1	A.MFS.0198	Beef shelf life prediction model – MLA adaptation and extension modules
1.1	A.MFS.0214	Development of a tool for the practical control of listeria monocytogenes

– **1.2 Maintaining and liberalising access to world markets**

None to report

– **1.3 Maximising market options for producers and exporters in the livestock export trade**

AOP	Contract code	Contract title
1.1	A.RBP.0001	Technical Advice: Program establishment
1.1	A.MFS.0185	Shelf-life evaluation of sliced lamb shoulders
1.1	A.COM.0144	Bladestop technical review
1.1	A.GMO.0008	Meat and livestock gene technology e-bulletin 2008 – 2009
1.1	A.MFS.0123	Participation in the EU pathogenic escherichia coli network
1.1	V.LQA.1001	AgriSure standards development
1.1	A.MFS.0196	Extended shelf-life evaluation of sliced lamb shoulders
1.1	A.MFS.0169	National microbiological database analysis tool
1.1	A.MFS.0188	Preparation of a publication on M paratuberculosis in meat
1.1	A.MFS.0166	Shelf-life of chilled vacuum-packed beef
1.1	V.NLI.1031	NLIS usability review
1.1	V.NLI.1032	NLIS image library

1.1	V.NLI.1051	NLIS sheep monitoring committee
1.1	V.LQH.0801	Operation of the LPA NVD 1800 hotline
1.1	A.MFS.0184	Food safety advisor
1.1	V.EVD.1001	Development & support of electronic declarations
1.1	V.LIM.1002	Telephone costs to support the LPA NVD 1800 hotline
1.1	V.LPA.2010	LPA NVD operating funds
1.1	V.NLI.1010	NLIS helpdesk
1.1	V.NLI.1020	NLIS technical support
1.1	V.NLI.1030	NLIS communications
1.1	V.NLI.1040	NLIS database development
1.1	V.NLI.1050	NLIS – sheep
1.1	V.NLI.1061	NLIS database development - contract resources
1.1	V.NLI.1062	NLIS middle tier system development
1.1	V.NLI.1064	NLIS security testing
1.1	V.NLS.3002	NLIS saleyard scanning
1.1	V.SMA.1002	SAFEMEAT chair and secretariat
1.1	V.SMA.1004	Redevelopment of SAFEMEAT website
1.1	V.SMA.1006	NLIS status codes communications
1.1	A.MFS.0173	Food safety centre membership
1.1	A.MFS.0192	Participation in panel on practical control of listeria monocytogenes
1.1	A.MFS.0198	Beef shelf life prediction model – MLA adaptation and extension modules
1.1	A.MFS.0214	Development of a tool for the practical control of listeria monocytogenes
1.1	V.NLI.1063	NLIS database performance testing
1.3	B.LIV.0123	Investigating mortalities of sheep exported from Adelaide and Portland
1.3	W.LIV.0251	Quantitative assessment of cattle behaviours on board live stock ships
1.3	W.LIV.0130	Development of best practice guide for preparation of goats for export
1.3	B.LIV.0126	Effluent spillage and animal welfare during road transport
1.3	W.LIV.0133	Determining the feasibility of developing an ovine salmonella vaccine
1.3	W.LIV.0132	Investigating the relationship between salmonella / inanition and property of origin
1.3	W.LIV.0371	Review of the mark I, II and III cattle restraining boxes
1.3	W.LIV.0359	Manuals for management of Australian dairy cattle imported to tropical and temperate countries

1.3	W.LIV.0261	Best practice design of crates for livestock export by air
1.3	W.LIV.0152	Finalising the evaluation framework for the Live Export program
1.3	B.LIV.0346	Upgrade of an existing mark 2 cattle restraining box for ritual slaughter
1.3	W.LIV.0383	Review of stunning and Halal slaughter
1.3	W.LIV.0384	Development and delivery of dairy herd health and management workshop - Keningau, Alaysia
1.3	W.LIV.0153	Ex-post evaluation of LiveCorp and MLA programs for the live export industry
1.3	W.LIV.0376	Development of SE Asian feedlot training - production and translation of training modules
1.3	W.LIV.0374	Review of mark 3 and development of mark 4 cattle restraining box
1.3	W.LIV.0270	2009 National shipboard performance report

Imperative: Growing demand

– 2.1 Improving eating quality

AOP	Contract code	Contract title
2.1	V.MSD.0901	Evaluation of the economic impact of MSA
2.1	V.MSC.0002	MSA meat science training
2.1	V.MSC.0003	Development of online MSA producer training system
2.1	V.MSH.0001	Development on MSA grader on line refresher and assessment system
2.1	V.EQT.1004	Consumer sensory testing and flavour analysis development
2.1	V.EQT.1006	Investigation of objective beef flavour measurement
2.1	V.EQT.1008	Beef for sensory testing
2.1	A.MQT.0047	Technical support for scheduled SmartShape and SmartStretch technology demonstrations to targeted early adopter processors
2.1	V.EQT.1001	Management of consumer sensory testing and sensory research
2.1	V.EQT.1002	Conduct of consumer sensory testing of beef and lamb
2.1	V.EQT.1003	Preparation of sensory testing samples for beef and lamb
2.1	V.ISS.0001	Support for industry consultation in the development of the NSW beef labelling bill
2.1	V.MSB.0007	MSA end user training services
2.1	V.MSB.0008	MSA end user training services
2.1	V.MSC.0004	Development of online MSA ender user training and assessment system
2.1	V.MSC.2010	MSA producer training
2.1	V.MSD.2010	MSA research support

2.1	V.MSE.2010	MSA model development and industry support
2.1	V.MSH.2010	MSA supply chain development
2.1	V.MSI.0007	MSA wholesale and end user Audits
2.1	V.MSM.2010	MSA communications
2.1	V.MSR.2010	MSA sheepmeat development
2.1	V.MST.2010	MSA retail development
2.1	V.MSX.2010	MSA cost recovered activities
2.1	A.MQT.0044	Auditing guidelines for minimising cold shortening in sheep meat
2.1	P.PSH.0315	On-line Near Infrared Spectroscopy measurement of beef quality and eating quality
2.1	P.PSH.0386	Develop industrial controller for SmartStim technology
2.1	P.PIP.0239	Facilitated adoption of new generation one beef meat electronics
2.1	P.PIP.0238	Facilitated adoption of new generation one beef meat electronics
2.1	P.PIP.0240	New generation beef meat electronics, small to medium processors syndication
2.1	P.PSH.0252	Generation 2 MLA meat electronics development.

– **2.2 Enhancing the nutritional value of red meat**

AOP	Contract code	Contract title
2.2	D.MHN.0022	DPA is a functional long-chain omega-3 PUFA
2.2	D.MHN.0112	Analysis of patterns of eating and food combinations of Australian children
2.2	D.MHN.0301	Food industry and environmental sustainability
2.2	D.MHN.0702	Red meat consumption by Australian children
2.2	D.MHN.0300	Nutrition and cognition review
2.2	D.MHN.0706	Qualitative research into weekly meal repertoire and young women
2.2	D.MHN.0707	Quantitative research of consumer practices in relation to meal repertoire

– **2.3 Developing new products**

AOP	Contract code	Contract title
2.3	A.COP.0059	Co-products price monitor 2008 – 2009
2.3	A.BIO.0026	Provision of scientific and technical knowledge to High Value Bioactives Program

2.3	A.MPT.0019	Packaging and food technology advice
2.3	A.MPC.0017	Leatherhead bulletins 2009
2.3	A.MPT.0013	Impacts of high pressure processing (HPP) on fresh meat
2.3	A.COP.0057	Protein research collaboration project
2.3	P.PSH.0342	Technical R&D support to develop new value-added red meat products in new domestic and export markets
2.3	P.PSH.0346	Supply chain studies to develop new value-added red meat products in new domestic and export markets
2.3	P.PSH.0347	Manufacture of an industrial enzyme from bovine kidneys

– **2.4 Promoting industry integrity**

None to report

Imperative: Enhancing competitiveness and sustainability

– **3.1 Increasing cost efficiency and productivity – on farm**

AOP	Contract Code	Contract Title
3.1	B.GAG.0410	Scoping study - <i>Grain and Graze II</i>
3.1	B.NBP.0262	Effectiveness of <i>S. jonesii</i> inoculum for cattle grazing leucaena
3.1	B.RMT.0010	Red meat targets: grazing management of dual-purpose winter wheat under irrigation
3.1	B.PAS.0260	Pastures Australia management agreement
3.1	B.SGA.0136	Sheep Genetics review of business model and development of alternatives
3.1	B.NBP.0339	Understanding and improving heifer fertility in the Northern Territory
3.1	B.NBP.0345	Industry initiatives to improve young breeder performance in the Pilbara and Kimberley of WA
3.1	B.NBP.0350	Increased efficiency of microbial protein production in the rumen through manipulation of nutrients and rumen microbial population
3.1	B.BSC.0056	Development and implementation of candidate gene based markers in out-crossing forage species: phase 2
3.1	B.NBP.0528	Remote area livestock group fatigue management standards, audit tools and business rule development

3.1	B.SBP.0039	Beef CRC 3 – prediction of carcass attributes in beef cattle
3.1	B.BSC.0094	Evaluation of sheep industry dynamics on the development and commercialisation of SNP parentage assay
3.1	B.BFG.0039	Genetic evaluation for the Australian beef industry -towards new horizons
3.1	B.BFG.0032	BREEDPLAN field support in Southern Australia
3.1	B.WEE.0135	Innovative management of silverleaf nightshade and prairie ground cherry
3.1	B.LSM.0011	Merino superior sires
3.1	B.NBP.0584	Caring for our Country: Enhancing adoption of best practice grazing management in northern Australia: phase 1
3.1	P.PSH.0478	Development of a fully automated procedure of analysing DNA test results (tracing genetic in breed pedigrees)
3.1	P.PSH.0450	Determining the process for developing a sustainable and effective value chain

– **3.2 Increasing cost efficiency and productivity – off farm**

AOP	Contract code	Contract title
3.2	A.SCT.0058	Cat scan OCM project – evaluating risks in using the technology in the meat industry
3.2	A.SRP.0031	SPUC – Single pulse ultra high current stunning - stage 4
3.2	A.TEC.0069	Automated beef shackling load system
3.2	A.OHS.0052	Q Fever register management
3.2	A.SCC.0053	eMTC Business and technical development 2009
3.2	P.PSH.0439	Beef industry supply chain analysis
3.2	P.PIP.0194	Robotic kidney fat removal system
3.2	P.PSH.0508	Automated beef scriber – finalise pre-production prototype
3.2	P.PSH.0518	Waterless frenched rack processing feasibility study
3.2	P.PSH.0479	Sensing development project
3.2	P.PIP.0269	Innovation strategy tour – IFFA
3.2	P.PIP.0116	Semi automated scribing
3.2	P.PIP.0250	EZI-LIFT Mechanical solutions to sheep and lamb carcass lifting and beef load out
3.2	P.PSH.0304	Proof of concept to process frenched lamb racks

– **3.3 Improving industry and market information**

AOP	Contract code	Contract title
3.3	V.LDL.1003	Livestock Data Link (LDL) stakeholder research and analysis
3.3	V.LDL.1006	LDL cost/benefit modelling

– **3.4 Ensuring sustainability**

AOP	Contract code	Contract title
3.4	B.CCH.2022	Review of water use and greenhouse gas emissions from red meat production
3.4	B.CCH.2023	Review of the impacts of red meat production and its competitors on biodiversity
3.4	A.ENV.0074	Economic analysis of demineralisation
3.4	B.FLT.0331	Greenhouse gas emissions from Australian beef cattle feedlots
3.4	A.ENV.0072	Review of anaerobic cover material vulnerability
3.4	B.NBP.0354	Using kangaroo bacteria to reduce emissions of methane and increase productivity
3.4	B.CCH.3007	On-farm case study of greenhouse gas emissions for beef enterprises
3.4	A.ENV.0094	The use of abattoir waste heat for absorption refrigeration
3.4	B.ERM.0102	<i>Future Farm Industries</i> CRC- biodiversity 2008–2011 scoping
3.4	B.NBP.0231	Biodiversity condition assessment for grazing landholders
3.4	A.ENV.0095	Renewable energy options for the Australian meat processing industry
3.4	A.ENV.0084	Environmental biotechnology CRC core funding 2009-10
3.4	A.ENV.0087	Provision of technical & scientific knowledge to the environment program 2009-10
3.4	A.ENV.0088	Support for granular sludge DEST grant project
3.4	B.FLT.0354	Quantification of feedlot manure output for beef-bal model upgrade
3.4	B.CCH.2002	Managing climate variability phase 2 2008–2011
3.4	P.PSH.0398	Modular biofiltration system stage 2
3.4	P.PSH.0507	Efficient use of water in export meat establishments
3.4	P.PIP.0153	Solid waste boiler combustion trial – reduction in fossil fuel derived energy

– **3.6 Improving biosecurity, animal health and welfare**

AOP	Contract code	Contract title
3.6	B.AHW.0100	Quantitation of sheep nematode parasites in faeces using a PCR technique
3.6	B.AHE.0015	Assessing the impact of fireweed on meat quality in Queensland
3.6	B.AHW.0132	Development of an improved frozen substitute for chilled tick fever vaccine for cattle
3.6	B.AHW.0091	Economic impact of bovine ephemeral fever virus in extensive northern beef herds, phase 2
3.6	A.PAW.0001	Review of national animal welfare standards for livestock processing establishments
3.6	B.AHW.0144	Genetic markers for polled, African horn and scurs genes in tropical beef cattle

Imperative: Increasing industry capability

– **4.1 Increasing adoption of R&D outcomes**

AOP	Contract code	Contract title
4.1	B.LSM.0010	Prime lamb finishing options
4.1	B.NBP.0576	Customising the grazing land management education workshop to the Borders Rivers region of Queensland
4.1	B.NBP.0603	Adapting the Central Australian version of the grazing land management workshop for indigenous people
4.1	B.COM.0034	Measuring MLA's contribution to the adoption of environmentally sustainable management practices, stage 2
4.1	A.COM.0145	Assessment for commercial requirements for SmartStim in a beef installation
4.1	B.COM.0254	External review of MLA <i>More Beef from Pastures</i> and <i>Making More From Sheep</i> programs 2009
4.1	B.COM.0255	Southern beef and sheepmeat situation analysis 2009
4.1	B.NBP.0518	Northern beef situation analysis 2009 – QLD
4.1	B.NBP.0512	Northern beef situation analysis 2009 – WA and NT
4.1	A.MIN.0087	MINTRAC Meat inspection & quality assurance network
4.1	A.PIA.0134	R&D for handling of bobby calves
4.1	B.COM.0192	Australian Rural Leadership Foundation producer scholarship
4.1	A.MIN.0086	MINTRAC Training managers network
4.1	A.MIN.0088	MINTRAC Environment network

4.1	A.MIN.0090	MINTRAC Communication, project evaluation and impact strategy
4.1	A.MIN.0091	MINTRAC Continuous improvement of the MTM07 Australian meat industry training package
4.1	A.MIN.0093	MINTRAC Addressing NATA requirements for E.coli O157 accreditation
4.1	A.MIS.0007	Meat industry services
4.1	A.MIS.0008	Meat industry knowledge development
4.1	B.HRZ.0251	Evergraze Support
4.1	B.COM.0081	Survey to evaluate program awareness and practice management adoption – 2009
4.1	B.NBP.0394	Rangelands Australia – promoting the products and consolidating the initiative
4.1	P.PSH.0367	Graduate program support
4.1	P.PSH.0368	Graduate program support
4.1	P.PIP.0214	SignalDemand data discovery

– **4.2 Building world-class skills and innovation capability**

AOP	Contract code	Contract title
4.2	B.PRS.0613	2006/V05 Non-toxic perennial grass pastures for sheep
4.2	A.PIA.0122	QA Network for domestic abattoirs
4.2	A.MIN.0076	MINTRAC Training and assessment materials development
4.2	B.NBP.0510	Producer demonstration site: Bow Park – investigation of effectiveness of practical vaccination protocols for reproductive wastage in north Australian breed herds
4.2	A.MIN.0085	MINTRAC Development and implementation of a national VET in schools policy for the meat processing sector
4.2	B.FLT.0437	Australian Rural Leadership Foundation lotfeeder scholarship
4.2	B.SCR.0008	Sheep CRC undergraduate scholars
4.2	B.PRS.9012	2007/S03 Management systems for hardy sheep breeds in pastoral conditions
4.2	B.COM.0292	Managing your profit drivers: train-the-trainer
4.2	B.PRS.0703	2007/N03 – Managing grass seeds in weaner sheep
4.2	B.NBP.0509	Producer demonstration site: Bollon and Chinchilla – demonstrating the management benefits of using the national livestock identification scheme
4.2	B.NBP.0484	Producer demonstration site: Jimbour – demonstrating and testing land condition recovery and enhancement strategies in the Jimbour uplands sub-catchment of the Darling Downs
4.2	A.PIA.0119	Evaluation of opportunities module and value proposition for innovation manager network

4.2	B.MBP.0011	Market research and pilot for a coaching delivery model in <i>More Beef from Pastures</i>
4.2	A.MIN.0058	MINTRAC Meat industry leadership development
4.2	B.PRS.9010	Higher pasture production & utilisation
4.2	P.PSH.0413	Feasibility study of e-learning training
4.2	P.PSH.0524	QCMPA NZ processing tour 2009
4.2	P.PSH.0427	Supply chain analysis stage 1
4.2	P.PSH.0343	Identification of value-added red meat opportunities in domestic and export markets
4.2	P.PSH.0344	Consumer research in value-added red meat products
4.2	P.PSH.0192	Undergraduate university scholarship program 2006–2010
4.2	P.PSH.0287	Graduate program support
4.2	P.PSH.0289	Graduate program support
4.2	P.PSH.0345	Developing capability in value-added red meat products
4.2	P.PSH.0258	Graduate program – engineer
4.2	P.PSH.0240	Graduate program support
4.2	P.PSH.0250	Graduate program support
4.2	P.PSH.0372	Feasibility review of creative water technology