MEMORANDUM OF UNDERSTANDING

Between

THE CROWN

And

FONTERRA CO-OPERATIVE GROUP LIMITED

And

FONTERRA PGGRC LIMITED

And

DAIRY INSIGHT INCORPORATED

And

DAIRY INSIGHT (PGGR CONSORTIA) LIMITED

And

MEAT NEW ZEALAND

And

MEAT NZ EMISSIONS COMPANY LIMITED

And

DEER INDUSTRY NEW ZEALAND

And

DEERESEARCH EMISSIONS MITIGATION COMPANY LIMITED

And

NEW ZEALAND FERTILISER MANUFACTURERS' RESEARCH ASSOCIATION INCORPORATED

And

WRIGHTSON LIMITED

And

WRIGHTSON CONSORTIA RESEARCH LIMITED

1. Background

- 1.1 Under the Kyoto Protocol, New Zealand is required to reduce its greenhouse gas emissions to 1990 levels, or to pay for any emissions over this target. Non-carbon dioxide emissions from pastoral agriculture account for more than half of New Zealand's total greenhouse gas emissions.
- 1.2 However, there are currently no proven, practical and cost-effective farm practices and technologies to reduce agricultural emissions whether by improving production efficiency for ruminant animals or otherwise. There is also a need to improve the accuracy of our estimates of on-farm emissions.
- 1.3 The Crown has decided, therefore, that it will bear the cost of the agricultural sector's non-carbon dioxide emissions, provided that the sector contributes to research into ways to reduce greenhouse gas emissions from agricultural activities.
- 1.4 The agricultural sector has prepared a strategy for research on the abatement of pastoral agriculture's greenhouse gas emissions entitled "A Pastoral Greenhouse Gas Research Strategy" (the Research Strategy).
- 1.5 The goals of the Research Strategy are:
 - 1.5.1 to identify, establish and develop on-farm technologies to improve production efficiency for ruminants;
 - 1.5.2 to identify, establish and develop on-farm technologies for sheep, dairy and beef cattle and deer, which lower methane emissions from New Zealand ruminants and nitrous oxide from grazing animal systems; and
 - 1.5.3 to exploit commercial opportunities arising from the science and technologies in a global market.
- 1.6 The target of the Research Strategy is to have safe, cost-effective greenhouse gas abatement technologies, which will lower New Zealand's total ruminant methane and nitrous oxide emissions by at least 20% compared with the 'business as usual' emissions level, by the end of the Kyoto Protocol's first commitment period (2012). While none of the elements of the Research Strategy are likely to individually provide a simple, universally applicable abatement technology or farm practices, taken together, and if widely adopted, they should at least defer any rise in New Zealand's agricultural emissions over the next 10 years.
- 1.7 The Crown and the parties involved in the Pastoral Greenhouse Gas Research Consortium (PGGRC) have agreed that the research is to be co-ordinated by the PGGRC.
- 1.8 The Crown and the parties involved in the PGGRC also recognise that some of the research identified in the Research Strategy is being undertaken outside the control of the PGGRC.

THE PARTIES AGREE:

2. Purpose

- 2.1 The purpose of this Memorandum of Understanding between the parties is to recognise the partnership between the Crown and the agricultural industry to fund research on the abatement of pastoral agriculture's non-carbon dioxide greenhouse gas emissions in accordance with the Research Strategy appended to this Memorandum of Understanding.
- 2.2 While this Memorandum of Understanding formalises the relationship between the parties, both the Crown and the members of the PGGRC acknowledge that it is not legally binding and has no legal effect.
- 2.3 The parties recognise that this Memorandum of Understanding in no way affects the contractual obligations that the PGGRC has entered into with the Foundation for Research, Science and Technology (FRST) on agricultural non-carbon dioxide abatement research.
- 3. The Pastoral Greenhouse Gas Research Consortium (PGGRC)
- 3.1 The PGGRC is an unincorporated joint venture. It was established for the purpose of carrying out research on the abatement of agricultural non-carbon dioxide gases, including options for industry to improve the production efficiency of ruminant animals.
- 3.2 Parties Involved in the PGGRC

3.3 Participants in the PGGRC

Parent Body

AgResearch (PPGR Consortia) Limited

AgResearch Limited

Fonterra PGGRC Limited

Fonterra Co-Operative Group Limited

Dairy Insight (PGGR Consortia) Limited

Dairy Insight Incorporated

Meat NZ Emissions Company Limited

Meat New Zealand

DEEResearch Emissions Mitigation Co Ltd DEEResearch Limited

Wrightson Consortia Research Limited

Wrightson Limited

New Zealand Fertiliser Manufacturers' Research Association Incorporated

- 3.4 With the exception of the New Zealand Fertiliser Manufacturers' Research Association Incorporated, each of the participants in the PGGRC is a special purpose subsidiary of its parent body.
- 3.5 Wrightson Consortia Research Limited, Meat NZ Emissions Company Limited, Dairy InSight (PGGR Consortia) Limited, and AgResearch (PPGR Consortia) Limited are wholly-owned subsidiaries of Wrightson Limited, Meat New Zealand, Dairy InSight

Incorporated, and AgResearch Limited respectively, while Fonterra PGGRC Limited is a wholly-owned subsidiary of Fonterra Corporate Research and Development Limited; a Fonterra Co-operative Group Limited subsidiary. DEEResearch Emissions Mitigation Company Limited is a wholly-owned subsidiary of DEEResearch Limited, in which Deer Industry New Zealand is a shareholder.

- 3.6 Parties to this Memorandum of Understanding
- 3.7 All of the special purpose subsidiaries and parent bodies listed in clause 3.5, being parties involved in the PGGRC, are parties to this Memorandum of Understanding, with the exception of AgResearch (PPGR Consortia) Limited and its parent company AgResearch Limited (a Crown entity).
- 3.8 A portion of the funding provided to PGGRC by Meat New Zealand in the period 1 July 2003 to 30 June 2004 is sourced from the Wool Board Disestablishment Company Limited, as agreed with Sheep Incorporated. It is intended that the activities of both Sheep Incorporated and Meat New Zealand in this area of research will be transferred to a new company currently named Single Organisation Limited within the next year. Meat New Zealand's participating interest in the PGGRC (through Meat New Zealand Emissions Company Limited) will contemporaneously be assigned to that company.
- 3.9 The Crown's contractual arrangements with the PGGRC are administered by FRST.

4. The Research Strategy

- 4.1 The Research Strategy is recognised as providing and identifying the industry's research commitments to this Memorandum of Understanding. The Research Strategy is appended to this Memorandum of Understanding.
- 4.2 Research results may not all advance the PGGRC's targeted outcomes and are indicative of the complexity in this field of research. The research featured in the Research Strategy may be modified over time, reflecting the need to re-prioritise resources to the most promising areas of research as projects evolve, in order to meet the Research Strategy's target and goals. It is also recognised that there may be a need to adjust the allocation of resources from industry, possibly including the allocation of additional resources, if new priority areas of research are identified consistent with the Research Strategy goals as part of a scientific review process.

5. Roles and Responsibilities

- 5.1 The Crown's Role
- 5.2 The Crown undertakes to maintain at least the current level of Crown investment in agricultural non-carbon dioxide abatement research for the duration of this Memorandum of Understanding.
- 5.3 The Crown will not implement a legislated levy on the agricultural sector for the purposes of provision of research into agricultural non-carbon dioxide abatement as long as this Memorandum of Understanding is in effect.

- 5.4. Officials from the Ministry of Agriculture and Forestry (MAF) and the National Institute of Water and Atmospheric Research Ltd (NIWA) are associate members of the Board of the PGGRC. A Crown nominee will also act as a scientific advisor on the PGGRC Science Advisory Group/Science Review Panel.
- 5.5 The PGGRC's Role
- 5.6 The role of the PGGRC is to co-ordinate the agricultural sector's programme of research into the abatement of agricultural non-carbon dioxide gases, including options for industry to improve the production efficiency of ruminant animals, in accordance with the industry Research Strategy appended to this Memorandum of Understanding.
- 5.7 The PGGRC parties together will co-ordinate their individual activities that may contribute to all parties' programmes of research, commercialisation or the transfer and extension of such research, to maximise the collective outputs.
- 5.8 The role of the PGGRC includes:
 - 5.8.1 to promote the undertaking of research consistent with the Research Strategy by third parties; and
 - 5.8.2 to co-ordinate, monitor and report, to the extent reasonably practicable, on research activities that are identified in the Research Strategy but are undertaken outside the direct control of the PGGRC.
- 5.9 It is recognised that the parent bodies participating in this Memorandum of Understanding are undertaking a significant amount of the research identified in the Research Strategy, which is outside the direct control of the PGGRC.

6.0 Monitoring and Reporting

- 6.1 The PGGRC will provide an annual report to the Crown (by delivery to the Convenor, Ministerial Group on Climate Change, or to a person holding another position as may be notified to the PGGRC from time to time in writing) on the research and other activities conducted at the end of each year. The report will also contain the planned programme of activity for the coming year. The report will be presented to the Crown by 31 July each year. The report will be presented in two parts. Part I will present those elements directly needed for the PGGRC reporting requirement to FRST, and Part II will present a comprehensive assessment for the Crown of the agriculture sector's investment in non-carbon dioxide agricultural greenhouse gas research as outlined in the Research Strategy.
- 6.2 The PGGRC's report under Part I shall include:
 - 6.2.1 The nature and the purpose of the programme;
 - 6.2.2 The main achievements of the programme;
 - 6.2.3 The success of the research (in terms of progress towards outcomes and milestones);
 - 6.2.4 The significance of the findings (e.g., in terms of potential farm level impact or development potential);

- 6.2.5 Funding status how much funding the PGGRC has received in the last 12 months, and from whom;
- 6.2.6 Partnership initiatives, including significant strategic links with user organisations and other researchers or providers; and
- 6.2.7 Human capital-building initiatives (e.g., PhD students, post doctorates).

6.3 The PGGRC's report under Part II shall include:

- 6.3.1 A comprehensive assessment of the research in relation to the Research Strategy's target and goals; and
- 6.3.2 Reporting sufficient information for the Crown to assess the funding level and rate of progress on pastoral agriculture's non-carbon dioxide greenhouse gas emissions research, including, to the extent reasonably practicable, on those projects not directly under the control of the PGGRC but identified in the Research Strategy.

7. Statement of Principles

- 7.1 The parties will work together with reasonableness and honesty of purpose to establish and maintain a relationship of mutual benefit based on goodwill, co-operation and partnership.
- 7.2 The Memorandum of Understanding is recognised as a 'living'document by the parties and may be reviewed from time to time at the request of any party and consequently changed by mutual agreement.

8. Confidentiality

- 8.1 No party will comment publicly on any matters that relate directly or indirectly to the policies, practices or procedures of another party with respect to this Memorandum of Understanding without first advising and/or discussing the matter with the other parties.
- 8.2 With the exception of information that is already available in the public domain, all parties agree that all information and trade secrets communicated to one party in any manner in connection with this Memorandum of Understanding classified as "Confidential Information", whether before or after the date of this Memorandum of Understanding, will be used by the recipient party only for the purposes of this Memorandum of Understanding.

9. Disclosure

9.1 If a party is required by law to disclose any Confidential Information, that party shall immediately inform the other parties in a manner and at a time reasonably sufficient for the other parties to take whatever action they consider necessary to protect their rights regarding Confidential Information.

10. **Protocols for Publicity**

10.1 All media releases related to the Research Strategy or this Memorandum of Understanding intended to be issued by any party will be forwarded to the other

parties in a manner and at a time reasonably sufficient for the other parties to prepare a response in advance of the planned release.

11. Intellectual Property

- 11.1 The parties involved in the PGGRC, and the Crown, recognise the public and industry good nature of intellectual property generated and will seek to ensure that intellectual property policies of the parties will not be an impediment to the widespread adoption in New Zealand of any intellectual property that is generated.
- 11.2 The intellectual property of any party must not be disclosed to any third party without the prior approval of the party owning the intellectual property.
- 11.3 The intellectual property policies of the PGGRC will not be inconsistent with the policies of FRST, as amended from time to time.

12. Duration of Memorandum of Understanding

- 12.1 This Memorandum of Understanding shall be dated by the first party to sign the document. Each party will become a party to this Memorandum upon signing the document.
- 12.2 This Memorandum of Understanding will be reviewed in June 2007, or at such other time as may be agreed by the parties. Any review will be carried out by co-ordination officers, one nominated by the Minister of Agriculture and the Convenor, Ministerial Group on Climate Change on behalf the Crown, and one nominated by the PGGRC.
- 12.3 This Memorandum of Understanding may only be altered with the written consent of all parties.
- 12.4 Any party may exit this Memorandum of Understanding at any time while it is in effect, subject to 30 days notice in writing to the other parties of its intention to exit. If, during the 30 day notice period, any party is opposed to the exit of another party, it may refer the matter to the Minister of Agriculture and the Convenor, Ministerial Group on Climate Change (on behalf of the Crown) and the chief executive officers of the other parties for discussion, or their respective designated appointees.
- 12.5 If the Crown exits, the Memorandum of Understanding is terminated.
- 12.6 The Memorandum of Understanding may be terminated by mutual consent of the parties.

13. Resolution of Differences

13.1 In the event that any differences of understanding arise between any of the parties concerning either the interpretation of this Memorandum of Understanding, or any matter arising under it, which cannot be resolved amicably and in good faith within 30 working days of the difference arising, such differences shall be referred for resolution to the Minister of Agriculture and the Convenor, Ministerial Group on Climate Change on behalf the Crown, and the chief executive officers of the other parties, or their respective designated appointees.

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14.1 Any notice, media releases, reports or other communication under this Memorandum of Understanding must be in writing and may be served personally, sent by registered mail (within New Zealand) or forwarded by email or facsimile transmission.

mail (within New Zealand) or forwarded by em	an or facsimile transmission.
Dated this 29h day of Juneary 20	024
Signed on behalf of the Crown by: Convenor, Ministerial Group on Climate Change Date	P2 92 H5 8 500
And	
Minister of Agriculture Date:	28-1-04
Signed on behalf of Fonterra Co-operative Group Limited by:	Mayl
Designation: Date:	[4-01-04
Signed on behalf of Fonterra PGGRC Limited by:	MEddi
Designation: Date:	PCCRC Drector
Signed on behalf of Dairy InSight Incorporated by:	II M
Designation: Date:	Chair man
Signed on behalf of Dairy InSight (PGGR Consortia) Limited by:	Millow
Designation:	Director 12/12/03

Signed on behalf of Meat New Zealand by:	Had
Designation: Date:	//12/2003
Signed on behalf of Meat NZ Emissions Company Limited by:	Mul
Designation: Date:	Orrec hor 40-12-03
Signed on behalf of DEER INDUSTRY NEW ZEALAND by:	b feng
Designation: Date:	2:1:103
Signed on behalf of DEEResearch Emissions Mitigation Company Limited by:	AH C
Designation: Date:	DIRECTOR 18 DECEMBER 03
Signed on behalf of NZ Fertiliser Manufacturers' Research Association Inc. by:	J. T. Prungle
Designation: Date:	6 Lairman 16 -12 -03
Signed on behalf of Wrightson Limited by: The Common Seal of Wrightson Limited	SON
Designation: Date: 15/253 was hereto affixed in the presence of Authorised Sign	ratory Y 4000
Signed on behalf of Authorised Sign Wrightson Consortia Research Limited by:	
Designation: Date 10/2/03 Witnessed	CAROL-ANNE SKJELLERUM
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Authorised Signatory CAROL-ANN PA to Manit WELLINGTO	le skjellerup aging Director on