

CIMS

10 JUN 1997

THE GRAINS RESEARCH AND DEVELOPMENT CORPORATION

LEAD AGENCY AGREEMENT

JULY 1996

MOU/CIMMYT/G922/97

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PART I - FORMAL INSTRUMENT OF AGREEMENT

THIS LEAD AGENCY AGREEMENT is made
BETWEEN:

2th day of June

1997

- (1) The **GRAINS RESEARCH AND DEVELOPMENT CORPORATION**, a corporation established by the Grains Research and Development Corporation Regulations made under the *Primary Industries and Energy Research and Development Act 1989*, of Level 2, Bligh House, National Circuit, Barton, in the Australian Capital Territory (the "**Corporation**"); and
- (2) **INTERNATIONAL MAIZE AND WHEAT IMPROVEMENT CENTRE (CIMMYT)**, of Adpo in MEXICO (the "**Researcher**").

RECITALS

- A. The Corporation, in the performance of its functions arising under the Act, invests in the conduct of various projects concerning:
 - research and development in relation to the grains industry in Australia; and
 - facilitation of the dissemination, adoption and commercialisation of the results of research and development in relation to the grains industry in Australia.
- B. The Researcher wishes to conduct the Project and the Corporation wishes to invest in the Project.
- C. The Researcher also wishes to assist the Corporation in the performance of its functions under the Act by coordinating the performance of the Major Project by the Major Project Participants and the Corporation wishes to obtain that assistance.
- D. The Parties have agreed to undertake the Project and the Major Project on the terms and conditions of this Lead Agency Agreement.

IT IS AGREED that the annexed documents entitled:

PART II GENERAL CONDITIONS

PART III LEAD AGENCY CONDITIONS

including their Schedules and Annexures, shall, together with this PART I - FORMAL INSTRUMENT OF AGREEMENT, constitute the Lead Agency Agreement and, where the Researcher is two or more persons, they shall be bound jointly and severally.

It is further agreed that where a term is defined in the General Conditions, that definition shall apply to the Lead Agency Conditions and that, where a term is defined in the General Conditions or the Lead Agency Conditions, that definition shall apply to this Formal Instrument of Agreement.

EXECUTED BY THE PARTIES AS AN AGREEMENT

SIGNED for and on behalf of
 the **GRAINS RESEARCH AND
 DEVELOPMENT CORPORATION** by
 an authorised delegate in the presence of:

.....
 Witness

Name (printed): Cathy Stewart.

.....
 Delegate

Name (printed): Joe Williams.

SIGNED for and on behalf of

**INTERNATIONAL MAIZE AND WHEAT
 IMPROVEMENT CENTRE
 (CIMMYT)**

by an authorised signatory in the presence of:

.....
 Witness

Name (printed):

.....
 Authorised Signatory*

Name (printed): Claudio Capatti

* In the case of companies, the signatory must be a director who has been authorised to execute this agreement by a resolution of the board of directors of the company. In the case of organisations other than companies, the signatory must be a person with authority to bind the organisation to major contracts.

PART II - GENERAL CONDITIONS

1. INTERPRETATION

1.1 Definitions

In this agreement:

"Accountant" means a person who is:

- (a) registered as an auditor under the Corporations Law;
- (b) a member of The Institute of Chartered Accountants in Australia or the Australian Society of Certified Practising Accountants; or
- (c) a Commonwealth Officer who exercises a delegation under the *Audit Act 1901* concerning the monies in relation to which certification is being made under this agreement.

"Act" means the *Primary Industries and Energy Research and Development Act 1989* of the Commonwealth, as amended from time to time;

"Application" means the application for research funds submitted to the Corporation by the Researcher, as varied by any amendments made by the Corporation, a copy of which forms Annexure D to this agreement;

"Capital Item" means any real or personal property acquired by the Researcher wholly or in part with Research Funds which costs in excess of \$5,000.00 (including land, buildings, improvements, yards, fencing, roads, irrigation facilities, plant, equipment, and livestock) and in relation to any livestock acquired by the Researcher wholly or in part with Research Funds, includes the progeny of such livestock provided that:

- (a) where a number of substantially similar items are acquired (for example livestock or laboratory equipment), it is the total cost of the group of items and not the unit cost which must be taken into consideration in determining whether the \$5,000.00 threshold has been reached; and
- (b) the Researcher must not use Research Funds to acquire any computers, communications equipment or similar or related items unless specifically itemised in the Application or otherwise approved in writing by the Corporation;

"Category of Expenditure" means one of the following categories of expenses detailed in the Information Paper and the Application relating to the Project:

- (a) salary expenses;
- (b) travel expenses;
- (c) operating expenses; and
- (d) capital expenses;

"Commencement Date" means the date of commencement of the Project specified in the Schedule;

"Completion Date" means the date for the completion of the Project specified in the Schedule;

"Confidential Information" means all information, including technical and commercial information, which is indicated by one of the Parties to be confidential or which might otherwise reasonably be regarded by either of the Parties as confidential and which is not in the public domain and includes information concerning Intellectual Property and information the disclosure of which could prejudice the registration, exploitation or value of any Intellectual Property;

"Corporation IP" means any Intellectual Property or Confidential Information contributed to the Project by the Corporation;

"Depreciation Rate" means, in relation to a Capital Item, the depreciation rate nominated by the Corporation from time to time for items of that type;

"Employee" means an officer, employee or agent of, or consultant to, the Researcher whose duties relate wholly or in part to the conduct of the Project;

"Expenses of the Project" means any direct costs or expenses which have been or are to be properly incurred in the conduct of the Project as described in the Information Paper and which have been either disclosed in the Application or otherwise agreed in writing between the Parties including:

- (a) direct salaries and direct on-costs of staff involved in the conduct of the Project,
- (b) the actual cost of assets or facilities acquired for use on the Project (discounted by the amount that those assets or facilities are or may be used for other projects),
- (c) the cost of licensing in any Intellectual Property, the requirement for which has been disclosed in the Application or agreed to in writing by the Corporation,
- (d) approved travelling expenses,
- (e) approved operating expenses, and
- (f) costs associated with registering, maintaining and defending Project IP

but not including:

- (g) any overhead or administrative expenses, or
- (h) any Corporation IP or Researcher IP,

unless referred to in the Application or otherwise approved in writing by the Corporation;

"Final Report" means the report prepared by the Researcher under clause 7.3;

"Financial Year" means the period commencing on 1 July in each calendar year and finishing on 30 June in the next calendar year;

"Form A", "Form B" and "Form C" mean the forms so marked in the form of Annexures A, B and C to this agreement, or such other forms as may be prescribed for the purpose by the Corporation from time to time;

"Information Paper" means the most recent version of the document supplied by the Corporation to the Researcher entitled 'Information Paper';

"Intellectual Property" means any registered or unregistered intellectual property rights including any:

- (a) patents or rights concerning any discovery, invention, process, process improvement, procedure, manufacturing method, technique or information regarding the chemical composition of materials (whether patentable or not);
- (b) trade marks, business names or trading styles (whether registered or not);
- (c) copyright material and similar or neighbouring rights;
- (d) registered or registrable designs;
- (e) plant breeder rights or other proprietary information concerning genetic or biological material or engineering processes;
- (f) eligible layouts or protectable computer programs

as well as any right to seek registration of any intellectual property, but does not include Confidential Information or the copyright in any reports to be provided by the Researcher to the Corporation under this agreement;

"Milestones" means the stages in the performance of the Project described in the Schedule and/or the Application;

"Liability" means any liability, loss, damage, injury, cost, penalty or related expense;

"Loss" means any loss, damage or destruction to, or any loss of use of or other liability in respect of any property or equipment owned by a person, or any loss of profit, consequential damage or liability in respect of environmental damage suffered or incurred by a person;

"Party" means a party to this agreement;

"Project" means the research and development project or projects described in the Schedule and in the Application;

"Project Confidential Information" is any Confidential Information arising from or relating to the Project and, includes information constituting or concerning Project IP, or any results or products derived from the Project;

"Project IP" means any Intellectual Property arising from or in relation to the Project;

"Project Term" means the period commencing on the Commencement Date, and terminating on the earlier of the Completion Date and the date of termination pursuant to any notice given by the Corporation under clause 5.1;

"Researcher IP" means any Intellectual Property or Confidential Information contributed to the Project by the Researcher; and

"Research Funds" means all monies provided to the Researcher by the Corporation under this agreement.

1.2 General

In this agreement unless the context otherwise requires:

- (a) the singular includes the plural and vice versa;
- (b) a reference to an individual or person includes a corporation, partnership, joint venture, association, authority, trust or government;
- (c) a reference to any gender includes all genders;
- (d) a recital, schedule, annexure or description of the parties forms part of this agreement;
- (e) a reference to either Party includes that Party's executors, administrators, substitutes, successors and permitted assigns;
- (f) where an expression is defined, another part of speech or grammatical form has a corresponding meaning;
- (g) a reference to any organisation, committee or body includes a reference to any successor of that organisation, committee or body;
- (h) a reference to any legislation or regulation includes a reference to any amendment, modification or replacement to that legislation or regulation which may be made from time to time;
- (i) where the words "includes" or "including" are used they shall, if the context permits, be read to mean "includes, without limitation," or "including, without limitation,"; and
- (j) a reference to a clause, Schedule, Annexure or Attachment means, unless otherwise specified, a clause, Schedule, Annexure or Attachment to this agreement.

1.3 Headings

In this agreement, headings are for convenience only and do not affect interpretation.

1.4 Application of Agreement throughout Project Term

- (a) The terms of this agreement shall apply to any research activities forming part of the Project conducted throughout the Project Term, including activities conducted prior to the date of execution of this agreement.
- (b) Where applicable, where a Project was being conducted by the Researcher pursuant to an earlier version of the GRDC Research Agreement, and that Project is to become the Project to be conducted under this agreement, then, to the extent that there is an inconsistency between the terms of this agreement and the terms of an earlier agreement, the terms of this agreement prevail over, and are taken to have modified the terms of the earlier agreement with respect to any part of the Project or any activities undertaken in relation to the Project after the Commencement Date provided that where a Party had complied with all of its obligations arising under that earlier agreement up until the date of execution of this agreement, the Party will be taken to have complied with its obligations under this agreement up until the date of execution of this agreement.

1.5 Constitution of General Conditions and inconsistency

These General Conditions shall be constituted by:

- (a) these terms;
- (b) the Schedule;
- (c) the annexures;
- (d) the Information Paper, to the extent parts of it are incorporated by reference in this agreement; and
- (e) the Application.

To the extent there is any inconsistency between the provisions contained in any of the above documents, the inconsistency will be resolved by the provision contained in the earlier listed document in the above list prevailing, to the extent of the inconsistency, over the condition contained in the later listed document.

2. PAYMENTS BY THE CORPORATION

2.1 Agreement to provide funds

Subject to this agreement, during the Project Term the Corporation will provide to the Researcher the Research Funds specified in the Schedule solely to enable the Researcher to carry out the Project.

2.2 Payment procedure

- (a) Subject to clauses 2.3 and 6.4, during the Project Term the Corporation will make one or more payments to the Researcher during each Financial Year totalling the amount specified in the Schedule to this agreement.
- (b) Subject to clause 2.3, the Corporation will withhold half of the final payment which is due (generally six months prior to the Completion Date) until receipt by the Corporation of a satisfactory Final Report (as required by clause 7.3) and the final Financial Reports (as required under clause 6.5).

2.3 Obligations to make payments

The Corporation has no obligation to make any payment to the Researcher under this agreement unless:

- (a) the Researcher has complied with all of its obligations arising prior to the date of payment under any agreement between the Researcher and the Corporation, including achieving all Milestones, properly completing and delivering Forms A, B and C and complying with all other accounting and reporting obligations under any such agreement provided that the Corporation will not withhold payment without giving reasonable consideration to any reasons put forward by the Researcher for any failure to comply with its obligations under this agreement;
- (b) the Corporation has received sufficient funding in relation to the Financial Year in which the payment is to be made to enable it both to make the payment and to make payments during that Financial Year under all other research agreements entered into by the Corporation;
- (c) the Minister has approved the Corporation's annual operational plan and R&D plan under Part 2 of the Act in relation to the Financial Year in which the payment is to be made, and those operational and R&D plans are consistent with the Corporation making the payment to the Researcher;
- (d) in the opinion of the Corporation, the Researcher has a continuing need for funding; and

- (e) the Researcher has fully expended all funds previously provided to the Researcher by the Corporation under this agreement.

3. USE OF FUNDS

3.1 General obligation

Subject to clause 3.3, the Researcher must only use Research Funds for Expenses of the Project.

3.2 Use of Research Funds not expended on Expenses of the Project in a Financial Year

Subject to Clause 9, where the Researcher has not expended all Research Funds in the Financial Year for which they were received, the Researcher may carry the excess funds over for use on Expenses of the Project in the following Financial Year provided that it has notified the Corporation in writing of that intention and complied with any procedure required by the Corporation's Information Paper.

3.3 Transfers of expenditure

Subject to Clause 9, if the Expenses of the Project, properly categorised as falling under a Category of Expenditure, exceed the available Research Funds allocated in relation to that Category of Expenditure, the Researcher may pay up to the greater of \$5000 or 10% of the Research Funds allocated in relation to that Category of Expenditure (or such greater amount as the Corporation may first approve in writing) of those expenses from Research Funds allocated in relation to a different Category of Expenditure in each Financial Year.

3.4 Obligation to return unused funds at the end of the Project Term

Within 3 months of the end of the Project Term, the Researcher must return to the Corporation any Research Funds not expended on Expenses of the Project.

4. CONDUCT OF PROJECT

4.1 Carrying out of Project

The Researcher must:

- (a) use its reasonable endeavours to carry out the Project in a proper and professional manner during the Project Term so as to achieve all Milestones;
- (b) except as otherwise expressly provided in this agreement, provide at its own expense all facilities, services, premises and third party assistance specified in the Application or required to conveniently carry out the Project;
- (c) take all reasonable steps to ensure that all of its Employees put the Researcher in a position to comply with its obligations under this agreement including, in particular, those obligations which relate to Project IP, Project Confidential Information and Researcher IP; and
- (d) ensure that the Project is conducted by the personnel referred to in the Application unless replacement personnel are approved in writing by the Corporation.

4.2 Sub-contracting

- (a) Except to the extent specified in the Application, the Researcher must not sub-contract the conduct of the Project without the prior written consent of the Corporation, which consent must not be unreasonably withheld.
- (b) Where a Researcher is permitted to use a sub-contractor, the Researcher remains at all times responsible for any act or omission of any sub-contractor engaged by the Researcher.

- (c) In assuring compliance with clause 4.1(c), the Researcher must ensure that all rights in relation to any Intellectual Property created by a sub-contractor in the performance of any part of the Project are assigned to the Parties, to be owned as provided for in this agreement.

4.3 Variation of Project

- (a) The Researcher must not vary the aims or methodology of the Project, as set out in the Application, without the prior written consent of the Corporation. Requests for such changes may be included in Milestone Reports.
- (b) Where the Parties agree to the variation or extension of the Project, the Project will continue to be regulated in all other respects as set out in this agreement.

4.4 Additional funding

The Researcher must forthwith notify the Corporation in writing if it receives funds in relation to the Project from any person, other than a person specified in the Schedule to this agreement. In those circumstances, the Researcher must also provide details of the terms upon which those funds are provided.

4.5 Sale of property

If the Researcher sells any property (other than Project IP covered by clause 8 or Capital Items covered by clause 9) created, constructed or produced during the course of carrying out the Project, the Researcher must:

- (a) within 14 days of the date of sale, provide to the Corporation an account setting out details of the property sold, sale price, selling costs, the proportion of the sale price that the Researcher considers is attributable to Research Funds and the proportion attributable to other factors and details of those factors (if any); and
- (b) pay to the Corporation the proportion of the sale price attributable to Research Funds as determined by the Corporation acting in good faith and in consultation with the Researcher within 14 days of receipt of a notice of that determination from the Corporation.

4.6 Delay

The Researcher must immediately notify the Corporation in writing if:

- (a) it does not commence work on the Project within 1 month of the Commencement Date; or
- (b) it ceases work on the Project during the Project Term for any period greater than 1 month.

5. TERMINATION OF PROJECT

5.1 Termination by Corporation

Subject to having followed the procedure set out in clause 5.2 where appropriate, the Corporation may immediately terminate its funding of the Project and this agreement if:

- (a) the Researcher breaches any provision of this agreement and such breach continues unremedied for 14 days after service on the Researcher of written notice of the breach;
- (b) in the reasonable opinion of the Corporation, the Researcher is not conducting the Project in a competent and diligent manner;
- (c) a receiver, receiver and manager, liquidator, provisional liquidator or any other external administrator is appointed to the Researcher, or an application is made or a resolution is passed to wind up, or to issue a sequestration order in respect of, the Researcher, or in the opinion of the Corporation, the Researcher is unable to pay its debts as they fall due;

- (d) in the reasonable opinion of the Corporation, the Project is unlikely to achieve its objectives;
- (e) the Corporation's finances do not, in the reasonable opinion of the Corporation, enable it to continue to fund the Project;
- (f) in the reasonable opinion of the Corporation, the Project is not or has ceased to be relevant to the objectives or functions of the Corporation or otherwise ceases to be of value to the Australian grains industry; or
- (g) it would, in the reasonable opinion of the Corporation, be in the best interests of the Australian grains industry for the Corporation to cease to fund the Project so as to enable the Corporation to fund one or more proposed research projects that may, in the opinion of the Corporation, be of exceptional benefit to the industry.

5.2 Disputes concerning termination

- (a) Where the Corporation proposes to terminate pursuant to clause 5.1(b) or (d) it must first serve a notice on the Researcher setting out the reasons for the proposed termination and giving the Researcher 28 days to provide reasons why the agreement should not be terminated. The Corporation shall be under no obligation to make any payment to the Researcher following service of such a notice, unless the process in clause 17 has been followed pursuant to clause 5.2(b) and the Corporation has elected to continue with the Project.
- (b) Where the Corporation serves a notice on the Researcher pursuant to clause 5.2(a) and the Researcher does not agree with the Corporation's reasons set out in that notice, the Researcher may, by written notice delivered to the Corporation within 28 days of receipt of the Corporation's notice pursuant to clause 5.2(a), provide reasons why the agreement should not be terminated and, require the Corporation to follow the procedures set out in clause 17 in which case the Corporation must follow those procedures before its termination of this agreement under clause 5.1 will be effective.
- (c) Where the Researcher does not serve a notice on the Corporation pursuant to clause 5.2(b) within 28 days of receipt of the Corporation's notice under clause 5.2(a), the Corporation may, by further notice to the Researcher, immediately terminate this agreement pursuant to clause 5.1(b) or (d);

5.3 Additional costs

Where the Project has been terminated pursuant to clause 5.1, the Corporation may reimburse the Researcher for any reasonable additional costs in connection with the Project necessarily incurred by the Researcher as a result of the early termination. The Corporation is under no obligation to make such reimbursement except where the Project has been terminated pursuant to sub-clause 5.1(d), (e), (f) or (g) in which case the Corporation must, if the Researcher has employed staff or retained a consultant for the purpose of performing the Project, and if the Researcher incurs termination or redundancy costs in respect of such staff or consultant, reimburse the Researcher:

- (a) where the staff or consultant has been employed or retained pursuant to or in accordance with the terms of an award, for the proportion of that person's award entitlement on redundancy which is referable to that person's work on the Project; or
- (b) where the remuneration of such staff or consultant is not by or in accordance with an award, an amount equal to no more than two weeks' remuneration (at that person's usual rate) for each year of employment referable to that person's work on the Project, up to a maximum amount equal to eight weeks' remuneration. Where such person has not worked exclusively on the Project, the annual and maximum amounts shall be reduced to an amount proportional to the amount of time the person has worked on the Project in each year.

6. FINANCIAL PROVISIONS

6.1 Payments into account

The Researcher must pay all funds it receives from the Corporation immediately upon receipt into an account maintained by the Researcher with an Australian bank or a non-Australian bank approved in writing by the GRDC. Where the Researcher is a non-governmental department or agency or not a statutory entity, that account must be a special purpose account established for the Project and titled "GRDC Funds Special Purpose Trust Account" and details of that account must be provided, on its establishment, to the Corporation. Where the Researcher is a governmental department or agency or a statutory entity, the account need not be a special purpose account, provided the Researcher establishes and maintains a separate account code within a general ledger account for the Project and details of which account code are, on its establishment, provided to the Corporation.

6.2 Books of account

The Researcher must maintain proper books of account in relation to the Expenses of the Project. Such books of account must:

- (a) be complete and be maintained up to date;
- (b) record all Expenses of the Project;
- (c) be kept in a manner that permits them to be conveniently and properly audited;
- (d) be drawn up in accordance with any applicable Australian Accounting Standards; and
- (e) relate only to the Project.

6.3 Retention of records

The Researcher must obtain invoices or receipts or other appropriate records for all expenditure relating to the Project and must retain such invoices, receipts and records for at least 3 years after the end of the Project Term.

6.4 Request for final payment in each year of the Project

Where the Researcher is being paid more than once annually, the Researcher must forward to the Corporation as soon as possible following the end of each calendar year during the Project Term (and in any event before 30 March in the next following calendar year) a "Request for Final Payment" relating to the final (generally second half) payment for the Project for the then current Financial Year. The Request for Final Payment must be in the form of Form A. Where the Corporation has not received the Form A by 30 March, it will assume that no further funding is required by the Researcher in that Financial Year and may allocate those funds for investment in other research projects.

6.5 Financial reports

The Researcher must forward to the Corporation as soon as possible following the end of each Financial Year during which Research Funds are received by the Researcher (and in any event within 3 months of the end of each such Financial Year) or, in the last year of the Project, within 3 months of the end of the Project:

- (a) a "Statement of Receipts and Expenditure" relating to the Project for the preceding Financial Year (or part of it, in the case of a terminating Project) in the form of Form B, certified to be true and correct by an Accountant;
- (b) a "List of Transfers" relating to the Project for the preceding Financial Year in the form of Form C, detailing the transfers of expenditure (if any) made pursuant to clause 3.3 of this agreement; and

- (c) a statement signed by an Accountant addressed to the Corporation certifying that the Accountant is satisfied that all Research Funds expended during the course of the Financial Year to which the statements referred to in paragraphs (a) and (b) above relate were expended on Expenses of the Project.

6.6 Inspection by the Corporation

The Researcher must permit the Corporation (including any agent of the Corporation) from time to time and at all reasonable times:

- (a) to inspect work being carried out in connection with the Project, and
- (b) to examine and copy all accounts and other records required to be kept or maintained by the Researcher under this agreement (including, where a separate account is maintained for the Project, all statements issued by the relevant bank for the account into which Research Funds are deposited and, where the Research Funds are deposited into a general ledger account, the relevant parts of that general ledger account showing receipt and expenditure of Research Funds) and all other documents relating to the Project (except for data provided to the Researcher by a third party on a confidential basis).

6.7 Audit

The Corporation may from time to time at its expense arrange for the accounts and other relevant documents maintained by the Researcher in relation to this Project to be audited, and the Researcher must give all reasonable assistance to the Corporation and its auditor in relation to any such audit.

6.8 Repayment

Without limitation to any other right the Corporation may have under this agreement or at law, where review of the documents referred to in clause 6.6, or conduct of the audit referred to in clause 6.7, discloses that Research Funds have been used other than in conformity with the terms of this agreement, the Corporation may require the Researcher by notice in writing to refund the Research Funds which were misapplied. Upon receipt of such a notice the Researcher must, within 14 days, refund the Research Funds which were misapplied together with interest on those funds calculated at the commercial overdraft rate of the Commonwealth Bank of Australia applicable at the time of, and specified in, the notice from the Corporation.

7. REPORTING OBLIGATIONS

7.1 Progress reports

If the Project Term is greater than 12 months, the Researcher must as soon as possible after 31 December in any financial year during which the Researcher receives Research Funds and not later than 31 January in the same financial year, submit to the Corporation a brief written report outlining in relation to the Project:

- (a) current progress;
- (b) the extent to which objectives have been achieved;
- (c) any conclusions reached;
- (d) any discoveries made; and
- (e) any difficulties encountered;

and must attach to that report a "plain English" summary of progress to date of the Project, which report must not contain any Confidential Information and which must be suitable for dissemination to the Corporation's stakeholders.

7.2 Additional Information

The Researcher must, from time to time, provide such information or reports to the Corporation regarding the progress and results of the Project as the Corporation may reasonably require.

7.3 Final Report

- (a) Within 3 months after the end of the Project Term, the Researcher must provide to the Corporation a Final Report relating to the Project. The Final Report must detail:
 - (i) the Project objectives;
 - (ii) the extent to which the Project objectives were achieved;
 - (iii) the research results and benefits;
 - (iv) the difficulties encountered;
 - (v) the Researcher's recommendations for any further research;
 - (vi) the application of the results of the Project to industry;
 - (vii) a list of scientific papers or publications resulting from the Project;
 - (viii) such other details as may be prescribed by the Corporation in the Corporation's paper on final reports, as amended from time to time; and
 - (ix) copies of any photos, diagrams or other artworks (including, if requested by the Corporation, negatives, bromides or the like) which the Researcher has and which may be of assistance to the Corporation in the dissemination of information concerning the Project to the Corporation's stakeholders.
- (b) If a Final Report contains Confidential Information:
 - (i) the Researcher must stamp "Commercial-in-Confidence" in red ink on the cover of the report and must also mark as confidential the parts of the report which may reasonably be viewed as containing Confidential Information; and
 - (ii) the Corporation may require the Researcher to produce an edition of the Final Report in a form suitable for general distribution. If so required by the Corporation, the Researcher must produce a non-confidential version of the Final Report within four weeks of receiving a request to that effect from the Corporation.
- (c) If the Corporation reasonably forms the view that the Final Report does not adequately set out the matters referred to in clause 7.3(a), it must notify the Researcher in writing of the extent to which it believes the Final Report is deficient.
- (d) If the Researcher does not agree with the Corporation's notice under clause 7.3(c), it may require the Corporation, by written notice delivered to the Corporation within 28 days of receipt by the Researcher of the Corporation's notice, to submit to dispute resolution pursuant to clause 17, in which case the Corporation must follow the procedures set out in clause 17 and the Parties agree to comply with the outcome of that process.
- (e) If the Researcher does not deliver a notice under clause 7.3(d) within 28 days of receipt of the Corporation's notice under clause 7.3(c), the Researcher must submit a revised Final Report which rectifies the deficiency within 4 weeks of the date of receipt of the Corporation's notice and the Corporation will be under no obligation to pay any further Research Funds until the Corporation has accepted a revised Final Report.

- (f) If the Corporation has not delivered a notice under clause 7.3(c) to the Researcher within 90 days of receipt by the Corporation of the Final Report, the Corporation will be deemed to have accepted that report.

7.4 Ownership of reports

The copyright in all reports (including a Final Report) provided to the Corporation by the Researcher pursuant to this clause (but not the Project IP or Project Confidential Information referred to in any such reports) will be owned by the Researcher but the Researcher by executing this agreement, grants to the Corporation (subject to the provisions of clause 8) a perpetual, fully paid, royalty free, worldwide licence to use such reports and the information disclosed in them and any other copyright material provided with the reports for the Corporation's purposes (including reporting to its members, Panel members, stakeholders or the government) or in pursuance of the functions of the Corporation arising under the Act.

8. PROJECT IP AND PROJECT CONFIDENTIAL INFORMATION

8.1 Corporation IP and Researcher IP

- (a) The Corporation may contribute Corporation IP to the Project. If it does so it will grant the Researcher a royalty free, non-exclusive licence to use the Corporation IP for the purposes of the Project during the Project Term. Where part of the Corporation IP comes to be included in a report or in Project IP, the licence granted under this clause will also permit the use of that part of the Corporation IP which has become included in the report or in the Project IP in any usage of the report or the Project IP which is permitted by clauses 7 or 8. Except as otherwise agreed between the Parties, all other rights in respect of the Corporation IP remain vested in the Corporation.
- (b) The Researcher may contribute Researcher IP to the Project. If it does so it will grant the Corporation a royalty free, non-exclusive licence to use the Researcher IP for the purposes of the Project. Where part of the Researcher IP comes to be included in a report or Project IP, the licence granted under this clause will permit the use of that part of the Researcher IP which has become included in the report or in the Project IP in any usage of the report or Project IP which is permitted by clauses 7 or 8. Except as otherwise agreed between the Parties, all other rights in respect of the Researcher IP remain vested in the Researcher.
- (c) Where this agreement is terminated by the Corporation under clauses 5.1 (a), (b) or (c), if the Corporation wishes to continue with the Project, the Researcher must grant such royalty free licence of Researcher IP as is necessary for the Corporation to have the Project continued by another person.
- (d) Where this agreement is terminated by the Corporation under clause 5.1 (d), (e), (f) or (g), if the Researcher wishes to independently continue with the Project, the Corporation must grant to the Researcher such royalty free licence of Corporation IP as is necessary for the Researcher to continue the Project.

8.2 Reporting discoveries

The Researcher must inform the Corporation promptly in writing of the discovery or production of any significant Project IP or Project Confidential Information. The Corporation and the Researcher must treat such information as confidential.

8.3 Ownership of Project IP

- (a) The Researcher and the Corporation will be entitled to share the ownership of any Project IP in the proportion specified in the Schedule.

- (b) If no proportion is specified in the Schedule, the Corporation and the Researcher must during the Project Term negotiate in good faith as to each Party's share of the ownership of Project IP. If the Corporation and the Researcher are unable to reach agreement, the Corporation will be entitled to a proportion of the ownership of Project IP equal to the proportion of the Project inputs (being the Expenses of the Project with the salary component inflated by an appropriate multiplier) that were paid by Research Funds, as reasonably determined by the Corporation.
- (c) Whilst it is recognised that there may be a change in shares of ownership of Project IP during the course of the Project, such a change will only be effective where it is the subject of a formal amendment to this agreement pursuant to clause 18.4.

8.3A Assignment and licensing of Project IP on termination

- (a) If this agreement is terminated by the Corporation pursuant to clauses 5.1(a), (b) or (c), the Researcher must immediately assign to the Corporation all of its right, title and interest in any Project IP or Project Confidential Information, and must execute any documents or do any things required to give effect to that assignment, and must immediately deliver up to the Corporation, or at its direction, all materials of any sort in its custody or control constituting, containing or recording Project IP or Project Confidential Information.
- (b) If this agreement is terminated by the Corporation pursuant to clauses 5.1(d), (e), (f) or (g), the Corporation must immediately assign to the Researcher all of its right, title and interest in any Project IP or Project Confidential Information and must execute any documents and do any things required to give effect to that assignment.

8.4 Right to royalties from the exploitation of Project IP and Project Confidential Information

Subject to sub-clauses 8.5 (e) and (f), the Researcher and the Corporation will be entitled to share any royalties, licence fees or other income resulting from the exploitation of Project IP or Project Confidential Information in the proportion that ownership of the Project IP is shared pursuant to the preceding clause 8.3.

8.5 Acts to register, evidence, maintain or defend Project IP

- (a) Subject to the following sub-clauses:
 - (i) the Researcher and the Corporation must, at the request of the other Party, execute any documents or do any other act reasonably required to evidence ownership of Project IP or to defend or maintain Project IP; and
 - (ii) where the Parties share ownership of Project IP which is to be registered, the Party with the greater share must (or, where they own equal shares, either Party may) apply for registration and, for the purpose of the registration, they will be named as joint owners.
- (b) Subject to clause 8.5(e), the Parties must contribute to the cost of the registration, evidencing, maintaining and defending Project IP in proportion to their share of ownership of the Project IP and either Party must reimburse the other Party where it properly incurs such costs within 28 days of receipt of a notification that such costs have been properly incurred.
- (c) A Party must notify the other Party of details of a proposed registration strategy prior to seeking registration of any Project IP including details of the type of registration, the countries in which registration is to be sought and the anticipated costs and benefits of the registration. If the other party does not respond to that notice within 28 days of receipt of such notification, it will be taken to have consented to the registration strategy.
- (d) Should either Party inform the other party in writing within the 28 day period that it does not agree with the registration strategy, the Parties must within 28 days meet to discuss that strategy. If the Parties then agree a revised strategy they will proceed with registration according to that strategy.

- (e) If a party responds to the notice in clause 8.5(c) that it does not wish to participate in the registration, or if agreement is not reached under clause 8.5(d) within 28 days, then the Party proposing the registration strategy may proceed to registration of that Project IP in its own name and at its own expense, provided that the other Party will at all times have a perpetual, non-exclusive, royalty free right to use that registered Project IP for education, research and other non-commercial purposes. The Party not participating in the registration must effect an assignment of its rights (subject to the licence back) and must execute any documents and do any things necessary to enable the registering Party to complete the registration provided that the registering Party must indemnify the other Party in respect of any expenses incurred by the other Party for providing that assistance.
- (f) Should either Party not wish to contribute, or to continue to contribute, its share to the maintenance or defence of any Project IP or Project Confidential Information, it must, if requested by the other Party, assign its share of ownership of that Project IP to the other Party, provided that the other Party must grant back to the assigning Party a perpetual, non-exclusive, royalty free right to continue to use that registered Project IP for education, research and other non-commercial purposes. The assigning Party must execute any documents and do any things necessary to enable the other Party to complete the assignment provided that the other Party must indemnify the assigning Party in respect of any expenses incurred by it for providing that assistance.

8.6 Limitation on assignment, licensing or other commercial exploitation of Project IP and Project Confidential Information

- (a) Where the Parties are joint owners of Project IP, neither Party may assign, licence or otherwise commercially exploit any Project IP without the prior written agreement of the other Party. Neither Party may commercially exploit Project Confidential Information without the prior written consent of the other Party.
- (b) The Parties acknowledge that the primary aim of the Project is to benefit the Australian grains industry and that maximisation of commercial returns is a secondary aim which will not be pursued to the detriment of the primary aim. Accordingly, the Parties undertake to work together, in good faith, to seek commercialisation or dissemination outcomes which maximise the benefit to the Australian grains industry. Those outcomes will be sought by following the procedure set out below.
- (c) Where either Party wishes to assign, licence or commercially exploit any Project IP, or commercially exploit any Project Confidential Information, it shall notify the other Party in writing ("Commercialisation Proposal") setting out details of the proposal including:
 - (i) anticipated costs of the proposal;
 - (ii) anticipated commercial returns and manner of sharing those returns;
 - (iii) anticipated risks;
 - (iv) proposed risk minimisation and transfer strategies;
 - (v) anticipated benefits to the Australian grains industry; and
 - (vi) any other relevant matters.
- (d) The Parties must meet within 60 days of the receipt by the non-proposing Party of the Commercialisation Proposal and negotiate in good faith in relation to that proposal, with a view to developing and implementing a program that will be of maximum benefit both to the Parties and to the Australian grains industry. Where the Parties agree on a commercialisation program, they may proceed with that program.

- (e) If the Parties are unable to agree on a commercialisation program then:
- (i) if the disagreement is due to the Corporation's reasonably held view that the proposed commercialisation is not in the best interests of the Australian grains industry, the commercialisation must not proceed; and
 - (ii) if the disagreement is for any other reason then, after the elapse of 12 months from the date of the Commercialisation Proposal, the Party which made the proposal may proceed at its own cost and at its own risk with the activities outlined in the Commercialisation Proposal and must be granted by the other Party any licence required to achieve that end. The non-commercialising Party may require the commercialising Party to:
 - (A) grant it an indemnity in respect of any loss or damage it may suffer resulting from the commercialisation; and
 - (B) buy out its interest in the Project IP or Project Confidential Information at a fair price agreed by the Parties. If the Parties are unable to agree such a price, clause 17 will apply.
 - (f) Where either Party undertakes any of the activities referred to in clause 8.6(a) without the prior written consent of the other Party, it shall indemnify, and keep indemnified, the other Party against any liability or loss incurred by that other Party as a consequence of that unapproved commercialisation or dissemination of Project IP or Project Confidential Information.

8.7 Limitation on non-commercial external use of Project IP and Project Confidential Information

- (a) Subject to clauses 8.7(b), 8.8, 8.9 and 8.10, neither Party may use Project IP or Project Confidential Information for non-commercial purposes, except with the prior written consent of the other Party, which consent must not be unreasonably withheld.
- (b) The Corporation is entitled to use Project IP or Project Confidential Information in the furtherance of its functions set out in section 11 of the Act or otherwise in order to comply with the Act, provided that in doing so it must have regard to any disclosure of Project Confidential Information or diminution in the value of Project IP which may result.

8.8 Internal Research and Education

The Researcher and the Corporation may utilise Project IP and Project Confidential Information for the purposes of internal research or education provided that neither Party may do so in a manner which may prejudice the future registration, value or commercial exploitation of any Project IP or the future commercial exploitation of any Project Confidential Information unless that Party has the prior written consent of the other Party, which consent must not be unreasonably withheld.

8.9 Publication with Corporation's consent

While the Corporation encourages the publication of articles of an academic, scientific and technical nature intended for learned journals, the Researcher must not publish any article in Australia or elsewhere or otherwise publicly disclose any Project Confidential Information if the publication or disclosure might adversely affect either the commercial exploitation value of any part of the Confidential Information or Project IP or the best interests of the Australian grains industry, without the prior written consent of the Corporation, which consent must not be unreasonably withheld.

8.10 Publication by Researcher without Corporation's consent

The Researcher may publish articles relating to the Confidential Information or Project IP without the consent of the Corporation:

(a) if the Researcher makes a request for the consent of the Corporation pursuant to clause 8.9 and has received no response from the Corporation within 90 days; or

(b) after 18 months following the later to occur of:

(i) the end of the Project Term; and

(ii) the receipt by the Corporation of the Final Report

provided that such publication must not adversely affect a commercialisation strategy in respect of Project IP or Project Confidential Information being conducted by the Parties under clauses 8.6(c) or by the Corporation under clause 8.6(d); or

(c) where the publication is constituted by the presentation of a thesis by a university student, the presentation of that thesis, provided that appropriate steps are taken to ensure that confidentiality of information is maintained including placing appropriate access limitations on the thesis where it is required to be placed in a university library.

8.11 Access to Project IP and Project Confidential Information

Each Party must give the other Party access to any Project IP, Project Confidential Information, Corporation IP or Researcher IP that the other party has a right to use under this clause 8.

9. CAPITAL ITEMS

9.1 Purchase

The Researcher must not purchase a Capital Item unless details of the need for and cost of the Capital Item are included in the Application, or the Corporation has otherwise approved the purchase in writing.

9.2 Maintenance and repairs

The Researcher must, at its own expense unless included in the application, maintain all Capital Items in good condition for the Project Term, and effect all necessary repairs.

9.3 Ownership

Subject to clauses 9.6 and 9.7, the Researcher will own all Capital Items.

9.4 No securities to be given

The Researcher must not grant, or permit to arise, any security interest (including mortgages, charges or liens but excluding floating charges given in the ordinary course of business) over any Capital Item during the Project Term.

9.5 Replacement

The Researcher must, at its own expense, promptly replace or repair any Capital Item that is lost, damaged or destroyed during the Project Term.

9.6 Early termination of Project

If:

- (a) the Project is terminated pursuant to clause 5.1 of this agreement; and
- (b) at the date of termination of the Corporation's funding of the Project, any Capital Item has not been fully depreciated at the applicable Depreciation Rate,

the Researcher must, at the option of the Corporation, either:

- (c) pay to the Corporation within 28 days after the end of the Project Term an amount equal to the proportion of the undepreciated value of the Capital Item (calculated at the applicable Depreciation Rate) that is equivalent to the proportion of the purchase price of the Capital Item that was funded from Research Funds; or
- (d) sell the Capital Item for the best price reasonably obtainable and pay to the Corporation within 28 days of the date of sale the proceeds of sale, less an amount equal to the sum of the Researcher's proportionate contribution to the purchase price of the Capital Item and the Researcher's reasonable costs of disposal of the Capital Item.

9.7 Sale of Capital Item during the Project Term

If:

- (a) the Researcher sells or otherwise disposes of a Capital Item during the Project Term; and
- (b) at the time of the sale or disposal, the Capital Item has not been fully depreciated at applicable Depreciation Rates,

the Researcher must, at the option of the Corporation, either:

- (c) pay to the Corporation within 28 days of the date of the sale or disposal of the item an amount equal to the proportion of the undepreciated value of the Capital Item (calculated at the applicable Depreciation Rate) that is equivalent to the proportion of the purchase price of the Capital Item that was funded from Research Funds; or
- (d) pay to the Corporation within 28 days of the date of the sale or disposal the proceeds of the sale or disposal, less an amount equal to the sum of the Researcher's proportionate contribution to the purchase price of the Capital Item and the Researcher's reasonable costs of disposal of the Capital Item.

10. INSURANCE

10.1 Workers' compensation

The Researcher must arrange, and maintain for the duration of the Project, insurance to the full extent against its liability at common law to employees engaged in the conduct of the Project (including liability for sickness, personal injury or death) and under all relevant laws of Australia relating to workers' compensation and the Researcher warrants that it shall comply with any applicable Federal, State or Territory legislation relating to workers' compensation or related matters.

10.2 Third party liability

The Researcher must maintain insurance with a reputable insurer covering any liability of the Researcher or of its employees to third parties that may arise as a result of carrying out the Project. Unless otherwise agreed in writing between the Researcher and the Corporation, such insurance cover must not have any unusual exclusions, must not exclude liability arising from environmental damage and must not have a limitation of cover of less than \$5,000,000.

10.3 Capital Items

Subject to clause 10.5, the Researcher must maintain insurance with a reputable insurer covering the risks of loss or destruction of, or damage to, Capital Items for the full insurable value of the Capital Items.

10.4 Professional Indemnity

Where appropriate for the type of work being carried out by the Researcher, the Researcher shall obtain and maintain in force professional indemnity insurance of a type and in an amount to the satisfaction of the Corporation.

10.5 Documentation

Except where the Researcher is a Commonwealth, State or Territory Government Department or Agency which is a self insurer, or the GRDC has otherwise accepted in writing that the Researcher may be a self insurer for the purposes of this agreement, the Researcher must, on demand, provide to the Corporation copies of current:

- (a) policies of insurance (including all endorsements); and
- (b) certificates of currency,

for all insurance policies required to be maintained by the Researcher pursuant to this clause. Where the Researcher is a self insurer, the Researcher must provide a certificate from an appropriately authorised officer to that effect.

11. EMPLOYEES**11.1 Not employees of the Corporation**

No Employee shall be considered to be in the service or employ of, or to be the partner or agent of, the Corporation or the Commonwealth.

11.2 Funding of statutory entitlements of Employee's and other employment related expenses

The Researcher must not use Research Funds to fund any statutory entitlements of any Employee or any other employment related expenses unless they are disclosed in the Application or are otherwise approved in writing by the Corporation

12. WARRANTIES AND UNDERTAKINGS**12.1 Capacity**

The Researcher warrants that it has:

- (a) the power to enter into this agreement and to carry out the Project; and
- (b) all necessary approvals, consents and authorisations to enable it to carry out the Project.

12.2 Legality

The Researcher warrants that the carrying out of the Project will not breach any relevant laws or regulations or infringe the legal rights of any person, provided that, with respect to patent rights, the Researcher will not be in breach of this warranty if it has taken all reasonable steps to ensure that it is not infringing the rights of any third party.

12.3 Misrepresentations

The Researcher warrants that all information provided by the Researcher to the Corporation in relation to the Project will be, at the time it is provided, correct, complete and not misleading in any respect.

12.4 Acknowledgment

The Researcher must prominently acknowledge the contribution of the Corporation to the Project in any document published or presentation made by the Researcher detailing the methods, results or conclusions of the Project.

13. CONDUCT OF RESEARCH

13.1 Animals

If the Project involves the use of animals, the Researcher must comply with all requirements set out in the national "Code of practice for the care and use of animals for experimental purposes" endorsed by the Australian Agricultural Council, as amended from time to time.

13.2 Recombinant RNA and DNA

If the Project involves the use of recombinant RNA and DNA techniques, the Researcher must comply with the safety guidelines established from time to time by the Recombinant DNA Monitoring Committee (RDMC) the Genetic Manipulation Advisory Committee (GMAC) or any other similar body established by the Commonwealth government.

14. LIABILITY OF THE CORPORATION

14.1 No Liability

The Corporation is not responsible for any Liability or Loss incurred by the Researcher, any agent, employee, student, sub-contractor, associate or officer ("Agent") of the Researcher or any other person in connection with the performance of this agreement or the carrying out of the Project except where the Liability or Loss is a direct consequence of any deliberately wrongful or negligent act of the Corporation in which case the Corporation will be liable for the proportion of the Liability or Loss which is a direct consequence (and excluding any indirect or special Liability or Loss) of the deliberately wrongful or negligent act of the Corporation.

14.2 Indemnity

The Researcher must indemnify and keep the Corporation and its Agents indemnified against:

- (a) all Liabilities or Losses relating to the Project that may be incurred by the Corporation or its Agents as a consequence of any act or omission (whether negligent or otherwise) of the Researcher or of any Agent of the Researcher; and

- (b) without limitation to paragraph (a), all legal costs (on a solicitor and own client basis) and other costs incurred in defending any action or claim relating to the Project brought against the Corporation or its Agents as a consequence of any act or omission, or alleged act or omission, (whether negligent or otherwise) of the Researcher or of any Agent of the Researcher provided that the indemnity will be reduced by the proportion of the Liability or Loss to which the indemnity relates which is a direct consequence of any deliberately wrongful or negligent act of the Corporation.

15. RELATIONSHIP BETWEEN PARTIES

15.1 No partnership

This agreement does not give rise to any partnership relationship between the Parties.

15.2 No agency

Neither Party to this agreement has, except as otherwise specified in this agreement, any right to act on behalf of, represent itself as agent for, or otherwise bind, the other Party.

16. NOTICES

16.1 Writing

All notices or communications given pursuant to this agreement must be in writing, must be signed by the Party giving the notice and must be delivered, sent by pre-paid post or transmitted by facsimile to the other Party.

16.2 Address

All notices or communications to be given to a Party pursuant to this agreement may be sent to the address of that Party set out in the description of the Parties, or such other address as may be advised by that Party in writing from time to time. Notices and communications to the Corporation should normally be addressed to the Managing Director.

17. DISPUTE RESOLUTION

- 17.1 If a Party gives the other Party notice of a dispute arising out of or relating to this agreement ("the Notice"), a dispute will be deemed to have arisen ("the Dispute"), and the Parties must resolve the Dispute in accordance with the provisions of this clause. Compliance with the provisions of this clause is a condition precedent to seeking relief in any court or tribunal in respect of the Dispute.

- 17.2 The Parties agree to negotiate in good faith and to use their best endeavours to resolve the Dispute.

- 17.3 If the Dispute is not resolved within 30 days of the receipt of the Notice referred to in clause 17.1, the Dispute must be immediately referred in the first instance to the Managing Director of the Corporation and the Chief Executive Officer of the Researcher or their nominees for the purposes of negotiating a resolution to the Dispute.

- 17.4 If the Dispute is not resolved within 30 days of the commencement of the process of negotiation referred to in Clause 17.3, the Parties agree to then co-operate in seeking the assistance of a third party mediator conversant with or capable of making a decision on the issues concerned to resolve the Dispute.

- 17.5 Nothing in this clause 17 shall prevent a Party from seeking interlocutory relief through courts of appropriate jurisdiction.

18. GENERAL

18.1 Assignment

Subject to clauses 8.5, 8.6 and 18.2 of this agreement, neither Party may assign its rights under this agreement without the prior written consent of the other Party.

18.2 Delegation by Corporation

The Corporation may delegate the exercise of its rights or the performance of its functions under this agreement to any person.

18.3 Waiver

The non-exercise of or delay in exercising any power or right conferred on the Corporation by this agreement does not operate as a waiver of that power or right.

18.4 Amendment

Notwithstanding any correspondence between the Parties, no amendment to this agreement is effective or valid unless it is effected by a Deed of Variation.

18.5 Governing Law

This agreement is governed by the laws in force in the Australian Capital Territory.

18.6 Submission to Jurisdiction

The Parties submit to the non-exclusive jurisdiction of the courts of the Australian Capital Territory and any courts which may hear appeals from those courts in respect of any proceedings in connection with this agreement.

19. CONFLICT OF INTEREST

(a) The Researcher represents and warrants to the Corporation, and it is a condition of this agreement, that -

(i) except as disclosed in writing to the Corporation before this agreement was made, the Researcher and its Employees did or will not at the Commencement Date hold any rights or property or have any obligations; and

(ii) except as disclosed under clause 19(b), the Researcher agrees not to at any time while the Project is being carried out acquire any rights or property or undertake any obligations,

by which, whether directly or indirectly, interests or obligations exist or might be created in conflict with its interests or obligations under this agreement.

(b) The Researcher agrees to give notice in writing to the Corporation of any matter, event or circumstance by reason of which any such conflict of interest is created, or might reasonably be expected to be created, as soon as reasonably possible after becoming aware of the matter, event or circumstance and to comply with any reasonable direction from the Corporation to deal with the conflict.

(c) The Corporation agrees that clauses 19(a) and 19(b) are limited to Employees engaged on or reasonably having knowledge of the Project sufficient to protect the interest of either Party in the Project and its results.

PART III - LEAD AGENCY CONDITIONS

1. INTERPRETATION

1.1 Definitions

"Major Project" means the research program comprised of the Research Projects as described in the Major Project Application and briefly described at item 1 of the Schedule to these Lead Agency Conditions.

"Major Project Application" means the application forming Attachment A to these Lead Agency Conditions which:

- (a) details how the Research Projects will be conducted as a Major Project;
- (b) sets out the Major Project Milestones; and
- (c) attaches all of the Applications in respect of the Research Projects.

"Major Project Milestones" means the milestones detailed in the Major Project Application against which progress of the Major Project may be measured and assessed which are set out at item 2 of the Schedule to these Lead Agency Conditions.

"Major Project Participants" means the researchers conducting the Research Projects.

"Major Project Term" means the period between the date of execution of this Agreement and the completion date for the Major Project set out at item 3 in the Schedule to these Lead Agency Conditions.

"Research Participation Agreements" means the agreements which will be entered into between the Corporation and the Major Project Participants (with the exception of the Research Project to be performed by the Researcher) by which the Major Project Participants be required to:

- (a) properly perform the Research Project for which they are responsible (by the General Conditions); and
- (b) co-operate with the Researcher in order to enable it to perform its lead agency obligations under this Lead Agency Agreement (by the Participation Conditions).

"Research Projects" means the research projects within the Major Project to be performed by the Major Project Participants, as detailed in the Major Project Application.

2. DESCRIPTION OF LEAD AGENCY ROLE

2.1 The Researcher has submitted the Major Project Application which consolidates the Applications in respect of the Research Projects and which, in addition to the milestones which apply to each of the Research Projects, contains the Major Project Milestones.

2.2 The Corporation wishes to ensure that the conduct of the Research Projects which form part of the Major Project is coordinated in order that:

- (a) research effort by Major Project Participants not be duplicated;
- (b) information exchange amongst Major Project Participants be maximised to the extent appropriate having regard to the nature of each Research Project and the Major Project; and
- (c) any other efficiencies or advantages derived from enhanced coordination between Major Project Participants be obtained.

2.3 To that end the Corporation is:

- (a) by the Lead Agency Conditions of this Lead Agency Agreement, appointing the Researcher as the Lead Agency for the conduct of the Major Project;
- (b) by the General Conditions of this Lead Agency Agreement, investing in the Project to be conducted by the Researcher, on the basis that the Researcher must conduct the Project in the manner contemplated by this Lead Agency Agreement; and
- (c) by the Research Participation Agreements, investing in the other Research Projects which, together with the Project to be performed by the Researcher, comprise the Major Project, on the basis that the other Major Project Participants must agree to participate in the Major Project in the manner contemplated by this Lead Agency Agreement.

3. OBLIGATIONS OF RESEARCHER

3.1 Progress Reports and Final Reports

As Lead Agency for the conduct of the Major Project, the Researcher must:

- (a) receive all progress reports from Major Project Participants (which are due from Major Project Participants by 31 January);
- (b) by 14 February, provide to the Corporation:
 - (i) the progress reports referred to in paragraph (a), together with the progress report required from the Researcher by clause 7.1 of the General Conditions, as a consolidated bundle; and
 - (ii) a consolidated summary which summarises progress in the Research Projects as against their milestones and reports on progress of the Major Project as against the Major Project Milestones;
- (c) receive all final reports from Major Project Participants (which are due from Major Project Participants within three months after the end of the Research Projects); and
- (d) within four months after the end of the Major Project Term provide to the Corporation:
 - (i) the final reports due from Major Project Participants together with the Final Report required from the Researcher by clause 7.3 of the General Conditions, as a consolidated bundle; and
 - (ii) a consolidated summary which summarises the final results of the Research Projects as against their milestones and reports on the final results of the Major Project as against the Major Project Milestones.

3.2 Reporting to the Corporation

As Lead Agency for the conduct of of the Major Project, the Researcher must, to the extent appropriate, inform the Corporation of :

- (a) any default or anticipated default in meeting the Major Project Milestones or the milestones of the Research Projects of which it is aware; and
- (b) any material breach of any Research Participation Agreement of which it becomes aware (including any misappropriation of monies).

3.3 Meetings

As Lead Agency for the conduct of the Major Project, the Researcher must organise such meetings or teleconferences of Major Project Participants as are:

- (a) set out in the Major Project Application;
- (b) appropriate in order to properly coordinate the conduct of the Major Project (and not less frequently than once each year); and
- (c) required by the Corporation.

3.4 Publicity and dissemination

As Lead Agency for the conduct of the Major Project, the Researcher must arrange such publicity, press releases or other forms of dissemination of information as are:

- (a) appropriate having regard to the nature of the Major Project (and having first obtained the approval of the Corporation and of any Major Project Participants to be named, or whose Researcher IP is to be referred to, in the publicity, press release or other form of dissemination); or
- (b) required by the Corporation (having first obtained the approval of any Major Project Participants to be named, or whose Researcher IP is to be referred to, in the publicity or press release).

3.5 Additional Funding

As Lead Agency for the conduct of the Major Project, the Researcher must identify and, if approved by the Corporation, seek to obtain such additional funding for the Major Project as is appropriate.

3.5 Major Project Application

The Lead Agency must comply with such other obligations as are detailed in the Major Project Application.

4. LEAD AGENCY FEE

4.1 Subject to:

- (a) the proper performance of its obligations under these Lead Agency Conditions; and
- (b) clause 4.2

the Researcher will be entitled to the Lead Agency Fee which the Corporation must pay:

- (c) in the amount;
- (d) on the dates; and
- (e) in the manner

set out at item 4 in the Schedule to these Lead Agency Conditions.

- 4.2 Where any Major Project milestones have not been met, and in the reasonable view of the Corporation that is due to the failure of the Researcher to properly perform its Lead Agency role, the Corporation may, at its discretion, withhold the Lead Agency Fee until such time as the outstanding Major Project Milestones have been met.



Grains Research and Development Corporation

SCHEDULE TO LEAD AGENCY CONDITIONS

PROTECTING THE AUSTRALIAN WHEAT INDUSTRY FROM KARNAL BUNT

1. Brief description of the Major Project:

To evaluate key Australian wheat genotypes for their susceptibility or resistance to Karnal Bunt (KB).

To incorporate known KB resistance genes into selected Australian wheat genotypes, as agreed upon by Australian breeders.

To help Australia obtain effective tools against KB and to minimise the effects of this potential threat to its export wheat market.

2. Milestones for the Major Project:

as detailed in the "Application" or Application Amendment"

3. Final Date for the Major Project:

30 June 2002

4. Lead Agency Fee *(fee in addition to funds allocated for Major Project)*

(a) **amount:** Not applicable

(b) **payment dates:** Not applicable

(c) **manner of payment:** Not applicable



**Grains Research and
Development Corporation
SUMMARY**

Major Project: Protecting the Australian Wheat Industry from Karnal Bunt

Lead Agency: International Maize and Wheat Improvement Centre (CIMMYT)

Major Project Participants: International Maize and Wheat Improvement Centre (CIMMYT)
University of Sydney

Research Project No 1: CIM5

Title: Protecting the Australian Wheat Industry from Karnal Bunt -
Component 1- CIMMYT

Major Project Participant: International Maize and Wheat Improvement Centre (CIMMYT)

Commencement Date: 30 June 1997

Completion Date: 30 June 2002

Research Project No 2: US7

Title: Protecting the Australian Wheat Industry from Karnal Bunt -
Component 2 - University of Sydney

Major Project Participant: University of Sydney

Commencement Date: 1 July 1997

Completion Date: 30 June 2001



Grains Research and Development Corporation

SCHEDULE TO GENERAL CONDITIONS PROJECT DESCRIPTION

9/05/97

Project No.: CIM5

GRDC Panel: Board

Program Number: 1.6.1

Project Title: Protecting the Australian Wheat Industry from Karnal Bunt - Component 1 - CIMMYT

Name: of Researcher (Organisation): CIMMYT

Project Aim(s): as detailed in the "Application" or "Application Amendment".

Milestone(s): as detailed in the "Application" or "Application Amendment".

Period Funds	Salaries	Travel	Operating	Capital	Total Corporation
1996/1997	\$106,795	\$2,564	\$10,256	\$0	\$119,615
1998/1999	\$106,795	\$2,564	\$10,256	\$0	\$119,615
1999/2000	\$106,795	\$2,564	\$10,256	\$0	\$119,615
2000/2001	\$106,795	\$2,564	\$10,256	\$0	\$119,615
2001/2002	\$106,795	\$2,564	\$10,256	\$0	\$119,615

TOTAL FUNDING:

\$598,075

Project IP:

The Corporations share of title to all Project IP, licensing and/or royalty income will be 40%

Commencement Date: 30-Jun-1997

Completion Date: 30-Jun-2002

Notes:

GRAINS RESEARCH & DEVELOPMENT CORPORATION

Request for Final Payment of Funds (as at 31st December, 19

Form A

Researcher :

A	Project Numbers	Project No		Project No		Project No		Project No	
		\$	c	\$	c	\$	c	\$	c
B	Funds Allocated								
C	Total Funds Received								
E X P E N D I T U R E	D Salaries								
	E Travel								
	F Operating								
	G Capital								
	H Total (D + E + F + G)								
I	Balance Due (B-C)								
J	Uncommitted/ Unexpended Funds (c/f 1 July)								
K	Funds Requested (I-J)								

NOTE: If the total expenditure for a project (Column H) is less than 1/2 of the total funds received up to 31 December for that project (Column C), a brief statement should be attached explaining the need for further payment of funds

Total Funds
Requested

Certificate of Accountant

I hereby certify that this statement is correct

.....
(Signature)

.....
(Printed Name and Phone No.)

...../...../.....
(Date)

.....
(Position)

1.1.(a) ☐ 1.1.(b) ☐ 1.1.(c) ☐
Qualification per Clause 1.1 of Research Agreement - please ☐ box

**ANNEXURE B
TO GENERAL CONDITIONS**

GRAINS RESEARCH & DEVELOPMENT CORPORATION

Statement of Receipts and Expenditure for the year ending 30th June, 19.....

Form B

		FUNDS ALLOCATED \$
Project No. :		Salaries
Researcher :		Travel
Title of Project		Operating
		Capital
		Total Funds

EXPENDITURE											
		Salaries		Travel		Operating		Capital		Total	
		\$	c	\$	c	\$	c	\$	c	\$	c
A	Uncommitted (c/f 1st July)										
B	Outstanding Commitments (c/f 1st July)										
C	Refunds of Monies										
D	Cash Received from the Corporation										
E	Approved Transfers (from Form C)										
F	Cash Available (A + B - C + D ± E)										
G	Expenditure										
H	Outstanding Commitments (30th June)										
I	Total Funds Committed (G + H)										
J	Uncommitted (30th June) (F - I)										
K	Other Income (Paid to GRDC)										

Note : Row B should be the same as Row H from the previous year and Row A the same as Row J from the previous year

Certificate of Accountant

I hereby certify that this statement is correct

(Signature)	(Printed Name and Phone No.)	(Date)
	1.1.(a) 	1.1.(b)
(Position)	1.1.(c) 	

Qualification per Clause 1.1 of Research Agreement - please ✓ box

GRAINS RESEARCH & DEVELOPMENT CORPORATION

LIST OF TRANSFERS

Form C

(Attachments to the Statement of Receipts and payments as at 30th June, 19.....)

Researcher : _____

Project : _____

Transfers within Project

Project Number	Head of Expenditure			
	Transferred From	\$	Transferred To	\$
Total			Total	

Revised total allocation after all transfers

Salaries	Travel	Operating	Capital	TOTAL

Certificate of Accountant

I hereby certify that this statement is correct

.....
(Signature)

.....
(Printed Name and Phone No.)

...../...../.....
(Date)

.....
(Position)

1.1.(a) ☐ 1.1.(b) ☐ 1.1.(c) ☐
Qualification per Clause 1.1 of Research Agreement - please ✓ box

NEW PROJECT APPLICATION TO GRDC 1996-97

Protecting the Australian Wheat Industry from Karnal Bunt

Project Aims

- To evaluate key Australian wheat genotypes for their susceptibility or resistance to Karnal Bunt (KB).
- To incorporate known KB resistance genes into selected Australian wheat genotypes, as agreed upon by Australian breeders.
- To help Australia obtain effective tools against KB and to minimize the effects of this potential threat to its export wheat market.

Project summary

Karnal bunt is a potential threat to Australia's wheat export industry. This project is a breeding strategy aimed at producing Australian cultivars which are resistant to Karnal bunt. It is a collaborative project with the University of Sydney's Plant Breeding Institute at Narrabri, and is linked to the PBI program on RWA and sprouting (Frank Ellison is the leader of the PBI project). KB, RWA and sprouting germplasm will be developed simultaneously to facilitate the generation of lines that fulfil two and all three of these objectives. CIMMYT is the lead agent for this collaborative arrangement.

The initial crosses and testing for KB will be done in Mexico to ensure the presence of genes for resistance. F5 progenies from a Karnal bunt free area will be sent to USPBI for final tests of adaptation.

Keywords

Karnal bunt; resistance; wheat; CIMMYT; diagnostics; surveys

Organization and address

International Maize and Wheat Improvement Center (CIMMYT)
Apdo. Postal 6-641 06600 Mexico, DF, Mexico

Admin. Contact

Mr. Tiffin Harris, Director of External Relations
Ph: 52-5-726-7535 Fax: 52-5-726-7538

Project leader:
Dr Richard Trethowan
CIMMYT

Grains Research &
Development Corporation

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Organisation: CIMMYT		Germplasm enhancement for Karnal Bunt resistance					
BUDGET SUMMARY		\$ 1997-98	\$ 1998-99	\$ 1999-00	\$ 2000-01	Other Years	\$ Total
SALARIES ON-COSTS							
Name and Designation							
1	Scientists	60,000	60,000	60,000	60,000	60,000	\$300,000
	Salary % GRDC <input type="text"/>	0	0	0	0	0	
2	Technician	10,000	10,000	10,000	10,000	10,000	\$50,000
	Salary % GRDC <input type="text" value="100"/>	0	0	0	0	0	
3		0	0	0	0	0	\$0
	Salary % GRDC <input type="text" value="0"/>	0	0	0	0	0	
4		0	0	0	0	0	\$0
	Salary % GRDC <input type="text" value="0"/>	0	0	0	0	0	
Other Salaries & On-Costs		13,300	13,300	13,300	13,300	13,300	\$66,500
TOTAL GRDC SALARIES		83,300	83,300	83,300	83,300	83,300	\$416,500
TRAVEL PA		10,675	10,675	10,675	10,675	10,675	53,375
1	CIMMYT staff	2,000	2,000	2,000	2,000	2,000	\$10,000
2		0	0	0	0	0	\$0
3		0	0	0	0	0	\$0
4		0	0	0	0	0	\$0
5		0	0	0	0	0	\$0
TOTAL GRDC TRAVEL		2,000	2,000	2,000	2,000	2,000	\$10,000
OPERATING PA		2,564	2,564	2,564	2,564	2,564	12,820
1	Nursery operation	8,000	8,000	8,000	8,000	8,000	\$40,000
2		0	0	0	0	0	\$0
3		0	0	0	0	0	\$0
4		0	0	0	0	0	\$0
5		0	0	0	0	0	\$0
TOTAL GRDC OPERATING		8,000	8,000	8,000	8,000	8,000	\$40,000
CAPITAL \$A		10,250	10,250	10,250	10,250	10,250	51,250
Total Capital (GRDC share):		0	0	0	0	0	\$0
TOTAL GRDC REQUESTED		93,300	93,300	93,300	93,300	93,300	\$466,500
NON-GRDC Investments		84	11,615	11,615	11,615	11,615	59,865
Host Organisation:		0	0	0	0	0	\$0
Other (Total):							
On-going base (if applicable)		0	0	0	0	0	\$0
Equity calculations for share of total project Intellectual Property, licensing and/or royalty income		CIMMYT 80% : GRDC 20%					GRDC Share: <input type="text" value="20%"/>
[If not completed the GRDC will assume 2% share in 100%]							

* This line item includes salaries and benefits of the following scientist in proportions indicated against their name:

Dr. Trethowan, Wheat Breeder 50%

Dr. Fuentes-Davila, Specialist Karnal Bunt 30%

Dr. Van Ginkel, Head Bread Wheat 15%

* * A full time technician with B.Sc. to follow up day to day activities.

* * * This includes cost of inputs, supplies, labor for field and lab and travel to Cd. Obregon, Sonora, the main station with KB.

~~* For 1996-97 covers cost of Australian contact scientist visit. Thereafter it covers visiting pathologist for KB diagnostics and survey techniques and visit of the contact scientists. (TRAVEL)~~

(Overhead calculated at the rate of 19% only for salaries and benefits.)

DETAILED RESEARCH PROPOSAL

1. R&D Problem being addressed

Karnal bunt is a quarantinable disease of wheat that can decrease quality and yield. ~~More~~ Importantly, it is not present in Australia, ~~and it is not known in which areas it could establish if inoculum arrived in Australia.~~ If the disease were found in Australia, it could have significant impact on the country's wheat export markets. Therefore, it is prudent to ~~train scientists in diagnostic techniques in the short term and~~ evaluate Australian wheat germplasm for KB resistance and breed for resistance in the mid- to long-term.

2. Research Methodology

Evaluation and Breeding

1. Test and identify levels of KB susceptibility/resistance in selected genotypes of collection of Australian cultivars present at CIMMYT in 1996-97. This will establish whether any Australian genotypes have useful resistance at present. A copy of the list is appended. These materials will be planted on two dates during November 1996 and inoculated using published techniques developed at CIMMYT as indicated in the references. This will give maximum information on their possible resistance.
2. For the crossing program Australia breeders select about 10 key cvs into which they wish to incorporate KB resistance and communicated to CIMMYT as soon as possible. If we have the selected materials in our germplasm collection we can use that as our source; if not, seed should be sent from Australia immediately so that we may begin crossing for KB resistance in February 1997.

It is anticipated that one Australian-based scientist will be the liaison regarding the project activities and he/she will visit in late 1996 or early 1997 to discuss program activities. This person should be named as soon as possible.

3. As noted, CIMMYT has identified 6-8 KB resistance genes to introgress into Australian cultivars. They have high heritability and a simple backcross system will be used. All crosses will be made in Mexico.

Sufficient crosses and donor lines will be used to ensure that all resistance genes are incorporated into the Australian cultivars. The number of crosses to be advanced will depend on combining ability and performance in the F₁ generation. The donors are high yielding, broadly adapted genotypes with resistance to the three rusts.

Breeding lines will be shuttled between CIMMYT's Yaqui Valley winter nurseries and Toluca, Mexico summer nurseries to shorten the backcross breeding time by half. Furthermore, the shuttling via Toluca will allow selection for resistance to diverse foliar blights.

4. Crosses and population management are as follows:
 - a. Australian cv / CIMMYT KB resistant donor-Yaqui 96-97
 - b. F₁-Mexico 97. Selection based on performance & disease resistance. Backcross with recurrent parent for BC1.
 - c. BC1-Yaqui 97-98. Backcross with recurrent parent for BC2. Select individual plants for type and for leaf rust resistance.
 - d. BC2-Mexico 98. Select individual plants for type and for yellow and leaf rust resistance.
 - e. F₂-Yaqui 98-99. Select individual plants for type and for leaf rust resistance.
 - f. F₃-Mexico 99. Modified bulk selection for type and yellow and leaf rust resistance.
 - g. F₄-Yaqui 99-2000. Inoculate with bulk cultures of *Tilletia indica*. Modified bulk selection for type and resistance.

- h. F5-Mexico 2000. Inoculate with bulk cultures of *Tilletia indica*. Modified bulk selection for type and resistance. Send best lines to Australia for field evaluation.
- i. F6-Yaqui 2000-01. Inoculate with bulk cultures of *Tilletia indica*. Pedigree selection. Send best F7 seed to Australia for testing and incorporation into breeding programs.

KB Survey and Seed Health Techniques

~~CIMMYT's KB specialist will be available to train visiting Australian scientists in regard to survey techniques used in Mexico and USA. Further, they would participate in laboratory analysis of seed for export to determine presence of KB. Standard published methods will be used including new Polymerase Chain Reaction methods.~~

~~In conjunction with the Australian based liaison, a schedule of activities will be delineated to train two Australian pathologists (one in 1997 and one in 1998) in diagnostic techniques used at CIMMYT and survey techniques used by the Mexican quarantine authorities in Sonora State.~~

3. Likely Research Outcomes

Determination of possible KB resistance in a key collection of Australian wheat cvs and the introgression of diverse KB resistance genes into important Australian wheat cvs for immediate use in Australian wheat breeding programs. An added feature would be the diversification of other pathogen resistance genes via the KB crossing program.

4. Likely Benefits

Australia will have trained scientists to identify the KB pathogen and conduct surveys as needed. Further, it will have solid insurance that its prime germplasm has good resistance to KB if the fungus does enter into Australia and establishes in certain wheat areas. If the fungus establishes in Australia the payoff in having resistant wheat available will be large.

5. Project Management

The project will be managed by Dr. M. van Ginkel (Head, Bread Wheat). The key researchers will be Drs. G. Fuentes-Davila (KB pathologist) and Dr. R. Trethowan (Wheat breeder). Dr. S. Rajaram (Director, Wheat Program) will participate as appropriate. The project will hire one B.Sc. level scientist for field and lab activities, and field and laboratory labor as needed.

It is anticipated that two breeding cycles per year can be achieved so that finished germplasm will be available for Australian breeders in 4 to 5 years rather than 8 to 10 years.

Project progress reports will be submitted as required.

From CIMMYT's perspective, the improved germplasm produced via this project will be considered in the domain of international public goods, as indicated by CIMMYT's CGIAR mandate.

References

1. Fuentes-Davila, G. 1996. Karnal bunt. *In* Bunt and Smut Diseases of Wheat: Concepts and Methods of Disease Management pp 26-32. eds. R. D. Wilcoxson and E. E. Saari. CIMMYT, Mexico.
2. Fuentes-Davila, G. and S. Rajaram. 1994. Sources of resistance to *Tilletia indica* in wheat. *Crop Protection* 13: 20-23.
3. Fuentes-Davila, G., S. Rajaram, and G. Singh. 1995. Inheritance of resistance to Karnal bunt (*Tilletia indica* Mitra) in bread wheat (*Triticum aestivum* L.). *Plant Breeding* 114:250-252.
4. Singh, G., S. Rajaram, J. Montoya, and G. Fuentes-Davila. 1995. Genetic analysis of Karnal bunt resistance in 14 Mexican bread-wheat genotypes. *Plant Breeding* 114:439-441.
5. Smith, O.P., et al. 1996. Development of a PCR-based method for identification of *Tilletia indica*, causal agent of Karnal bunt of wheat. *Phytopathology* 86:115-122.

Time line—Workplan

1996-97-Yaqui Valley

- November 1996 plant Australian wheat collection in Yaqui Valley for KB evaluation in early 1997.
- November 1996 obtain 10 key Australian cvs and plant in Yaqui Valley for crossing.
- Hire technician for KB research.
- Name Australian liaison and visit in early 1997. Plan visits and discuss project plans.
- KB inoculations and evaluation of Australian wheat collection. Feb. 1997.
- Crossing of Australian cvs with KB resistant CIMMYT donors. Feb. 1997.

- ~~Visit of Australian pathologist to obtain information on KB diagnostics and surveys. March 1997.~~

1997-Toluca, Mexico

- May 1997 Plant F₁s of crosses. Backcross to recurrent parents.

1997-98 Yaqui Valley

- November 1997. Plant BC₁s and backcross to recurrent parents.
- ~~Visit of 2nd Australian pathologist to obtain information on KB diagnostics and surveys. March 1997.~~

1998 Toluca, Mexico

- May 1998. Plant BC₂s and select individual plants.

1998-99 Yaqui Valley

- November 1998. Plant F₂s and select individual plants.
- Visit of Australian breeder/pathologist.

1999 Toluca, Mexico

- May 1999. Plant F₃s and modified bulk selection.

1999-2000 Yaqui Valley

- November 1999. Plant F₄ selected bulks. Inoculation with *Tilletia indica* teliospores as published. Select and promote only bulks that have less than 3% infection.

2000 Toluca, Mexico

- Plant selected F₅s and select as in F₄. Inoculate. Send best lines to Australia for evaluation.

2000-01 Yaqui Valley

- Plant selected F₆s and select as in F₅. Inoculate. Send best F₇ seed to Australia for evaluation.