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# MEMORANDUM OF UNDERSTANDING Between FACULTY OF AGRICULTURE, KHON KAEN UNIVERSITY And LANDCARE RESEARCH NEW ZEALAND LIMITED

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In order to promote co-operation between the Faculty of Agriculture, Khon Kaen University and Landcare Research New Zealand Limited in areas of Ecotoxicology and Ecological Risk Assessment, the two institutions believe that mutual benefits can be derived by bridging their two Institutes, achieving a closer relationship by linking their scholars, students and personnel. Both Institutes share the strong conviction that mutual understanding among people can be promoted through the establishment of academic links. Therefore, both Institutes agree to enter into this Memorandum of Understanding.

#### Objectives of Co-operation

- (1) to promote individual contacts among scholars, students and personnel of both Institutes;
- (2) to promote links in teaching, research and cultural activities;
- (3) to provide opportunities for both staff and student exchanges, however, such exchange need not be equally reciprocated;
- (4) to develop and to encourage joint research, seminars, conferences, workshops
- (5) to develop, when opportunity avails, joint research/study programs;

#### Areas of Co-operation

Ecotoxicology and Ecological Risk Assessment

#### Implementation

It is understood and agreed that:

Financial arrangements for collaborative research, seminars, workshops, conferences and other such activities will be negotiated separately and will be subject to the availability of funds.

### Duration and Termination of the Agreement

(1) This Memorandum of Understanding is effective as of the date of signature by each participating Institute.

- (2) This Memorandum of Understanding may be amended at any time as indicated by written mutual consent.
- (3) This Memorandum of Understanding may be terminated by either Institute giving to the other written notice of termination. However, both Institutes agree that all obligations to students, staff, personnel and funding bodies or other entities existing at the date of the giving of the Notice of Termination shall be complied with in full at the cost of the Institutes obliged same within the time of compliance agreed to by the Institutes notwithstanding the giving of the Notice of Termination.

Executed for Landcare Research New Zealand Limited	Executed for Faculty of Agriculture, Khon Kaen University  Pachilluman	
Michael Krausse Acting Science Leader, Built Environments  Date: 31/07/2006	Assance Pachinburavan, Ph.D.  Dean Date: 16/08/2004	
(Project leader) Senior Scientist Landcare Research	(Scientific team leader) Leading Researcher for Faculty of Agriculture, Khon Kaen University	
K. Offalloran  Dr.Kathryn O'Halloran  Date: 1.08.06	Chuleemas Boondai Iwai Chuleemas Boondai Iwai, Ph.D.  Date: 16/03/2006	

ARS CFDA NO. 10.001	Budget Object Class Code:		Code:	
United States Department of Agriculture Extramural Agreement	Type of Research Agreement: NON FUNDED COOPERATIVE	AGREEMENT	Control No. 14594	
Tible of Project BREEDING PEANUT LINES WITH RESISTANCE TO DROUGHT AND AFLATOXIN	Agreement Number: 58-6602-6-087FN	Type of Action: New	Accession No: 410567	
	Period of Agreement:		•	
	05/01/2006 thru	04/30/2011		
	Project Number: 6802-21000-018-02N	Authority: 7 U.S.C.3318(b)		
Agency (Name and Address)	Agreement Total:	Change in Agreement	Totat:	
USDA, REE, ARS, AFM, EAD 5601 SUNNYSIDE AVE./ MS 5110	\$0.00	\$0		
Room 3-2170B BELTSVILLE MD 20705	Accounting Distribution (Acco	ounting Code / Amount)		
Authorized Departmental Officer's Designated Representative	Cooperator/Recipient/Sponsor	Name and Address)		
(Name and Address) C. CORLEY HOLBROOK JR 151 MOORE HWY	KHON KAEN UNIVERSITY DEPT. OF AGRONOMY (Vendor Code: THKHONKAE-A) FACULTY OF AGRICULTURE KHON KAEN			
TIFTON GA 31793	THAILAND			
Finance Office (Complete Mailing Address)	Designated Representative (Name and Address) for the above:		ve:	
	SANUN JOCLOY DEPT. OF AGRONOMY FACULTY OF AGRICULTURE KHON KAEN	40002		
Applicable Provisions				
This Agreement includes the following:	Payment:		•	
Statement of Work Proposal		O HHS/Payment Management System		
Sponsor's Proposal		☐ EFT/Treasury Check ☐ ARS Receives Funds		
Budget (Form REE454)     Budget (Form REE455)		yment Authorized		
Budget (From REE499)     Pre-Award Costs Authorized  Applicable Provisions: Available at http://www.afm.ars.usda.gov/agreements/partnership.htm  Applicable Provisions: Available at http://www.afm.ars.usda.gov/agreements/partnership.htm  Applicable Provisions: Available at http://www.afm.ars.usda.gov/agreements/partnership.htm				
E Non Assistance Coop. Agreement	Reporting Requirements (submi	R) M ADODR D Spon	soring Organization	
Research Support Agreement (REE-452R) TFCA and RCA (REE-22) Grants and ATCA (REE-453) Non Funded Coop. Agreement (REE-29)	Submit:  Performance Re	al D S	ncial Reports Quarterly Semi-Annual Annual Tinal	
Other (Specify):	·;	•		
AD-1047 - Certification Regarding Debarment, Suspension and other Responsibility Matters - Primary Covered Transactions     AD-1049 - Certification Regarding Drug-Free Workplace Requirements     AD-1050 - Certification Regarding Drug-Free Workplace Requirements     REE-23 - Certification Regarding Lobbying - Contracts, Grants, Loans     REE-26 - Certification Regarding Performing Organization Type     Comments, (see page 2)     USDA Civil Rights Poster (AD-475A)	- Non-Individuals - Individuals	ntions and Subcontracts b interface at http://www.i	Edison.gov	

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Fo	r the United States Department of Agriculture:		
A. the deed Deposits onto Miner	Typed Name	Date /	
Maw Kim	DEADRA PERRY	5/3/06	
For the Performing Sponsoring Organization: (Signature of persons authorized to incur contractural obligations)			
Signature Lisace Padribuseum	Type Name and Title : Dr.Assanee Pachinbu Dean, Fac. of Agri., Ki		
Signature Prant Liv	Type Name and Title: Dr.Prasit Jaisil Associate Dean for Research, Fac. of Agri., KKU	Date 8/28/06	
DEF. 04/04/04	USDA-REE	Page: 1	

Form REE451

# Agricultural Research Service Agreements Information Management System Statement of Work

Agreement No. 58-6602-6-0087FN

Amendment No. 00

Cooperator:

KHON KAEN UNIVERSITY

Control No. 14594

#### **OBJECTIVE:**

The objective of this cooperative research project is to develop improved techniques for selecting drought tolerance, and to develop peanut germplasm with enhanced drought tolerance.

#### APPROACH:

Field, greenhouse, and pot studies will be conducted at ARS facilities in Tifton, GA, and at Khon Kaen University in Thailand. Field studies will be conducted to evaluate breeding populations for yield and aflatoxin contamination under heat and drought stress conditions. Greenhouse and pot studies will be conducted to evaluate some of this material for root growth and minimum epidermal conductance.

#### STATEMENT OF MUTUAL INTEREST:

Both parties are actively engaged in independent research projects to enhance drought tolerance in peanut. The parties will be working with different breeding populations, however, they will both benefit from the development of improved techniques for selecting for drought tolerance within these populations. The parties agree that meeting the objectives of this project will strengthen and enhance ongoing research within the scope of this agreement.

#### THE COOPERATOR AGREES TO:

- 1. Conduct at Cooperator facilities and elsewhere as appropriate, research directed toward activities include:
- a. Conduct pot and greenhouse studies to attempt to develop techniques that can be used to select for greater root growth.
- b. Conduct field studies to develop germplasm with resistance to early, mid, or late season drought stress.

#### **ARS AGREES TO:**

- 1. Conduct research on the following aspects of the project
- a. Conduct field studies under rain out shelters to evaluate breeding population for yield and aflatoxin contamination under heat and drought stress conditions.
- b. Conduct growth chamber studies to determine if minimum epidermal conductance can be used to select for improved water use efficiency in peanut.

#### MUTUAL AGREEMENTS:

- See applicable Provisions on the website: http://www.afm.ars.usda.gov/agreements/partnership.htm.
- 2. Correspondence and documentation submitted by the Cooperator to the ADODR in reference to this agreement should cite Agreement No. 58-6602-6-0087FN
- 3. Copies of all correspondence should be forwarded to the ADO at:

USDA, REE, ARS, AFM, EAD 5601 SUNNYSIDE AVE J MS 5110 Room 3-2170B BELTSVILLE

MD 20705

- 4. Patents and Inventions:
- a. "Subject Inventions" shall mean any invention conceived or first reduced to practice under this Agreement, and which is patentable or otherwise protectable under Title 35 of the United States Code, under Section 2321 of Title 7 of the United States Code, et seg., or under the patent laws of a foreign country.
- b. Each party shall promptly make written disclosure to each other of each Subject Invention, said information shall be treated in confidence by the receiving party until such time as a patent is applied for by the other party.

## Agricultural Research Service Agreements Information Management System Statement of Work

- c. Each party shall provide, when requested by the other, all information in its possession pertaining to a Subject Invention which may be necessary or useful in the preparation, filing and prosecution of patent applications covering the Subject Invention.
- d. Publication and/or oral disclosure of Subject Inventions shall be delayed in order to preserve the United States and/or foreign patent rights, PROVIDED said patent protection shall be promptly and diligently sought.
- e. All rights, title, and interest in any Subject invention made solely by employee(s) of ARS shall be owned by ARS.
- f. All rights, title, and interest in any Subject Invention made solely by at least one (1) employee of ARS and at least one (1) employee of the Cooperator shall be jointly owned by ARS and the Cooperator.
- g. All rights, title, and interest in any Subject invention made solely by employees of the Cooperator shall be owned by the Cooperator.
- 4. Either party shall be free to furnish such equipment as may be needed. Equipment provided by the Federal Government shall remain the property of the Federal Government, subject to its removal or other disposition at any time. Equipment provided by the Cooperator shall remain the property of the Cooperator, subject to its removal or other disposition at any time.
- 5. This Agreement is to define in general terms the basis on which the parties concerned will cooperate and does not constitute a basis for financial obligations or expenditures. Each party will handle and expend its own funds. Any and all expenditures from Federal funds made in conformity with the plans outlined in this Agreement must be according to Department and ARS rules and regulations and, in each instance based upon appropriate fiscal documents, such as lease, contract, purchase order, letter of authorization, etc.
- 6. The responsibilities assumed by the cooperating parties are contingent upon funds being available from which the expenditures may be legally made.
- 7. This Agreement may be modified or discontinued at the request of either party. Requests for termination or any change shall be submitted to the other party for consideration not less than 60 days prior to the desired effective date of the termination.
- 8. Copies of all correspondence and documentation concerning this Agreement shall be sent by the originating party to the Authorized Departmental Officer.