

SUBAGREEMENT 61-2859

between

MICHIGAN STATE UNIVERSITY

And

IOWA STATE UNIVERSITY

THIS SUBAGREEMENT is between Michigan State University, a non-profit educational institution located at 301 Administration Building, East Lansing, Michigan 48824, USA,, hereafter referred to as "MSU" and Iowa State University, hereafter referred to as "LEAD INSTITUTION."

I. INTRODUCTION

This Subagreement is in consideration of the following circumstances:

- A. MSU, designated as the Management Entity (ME), is the recipient of a "Leader With Associates" Cooperative Agreement from the United States Agency for International Development (USAID) award No. EDH-A-00-07-00005 (hereinafter "Prime Award"), for the implementation of the Dry Grain Pulses Collaborative Research Support Program (CRSP).
- B. The Dry Grain Pulses CRSP is administered by the MSU Dry Grain Pulses CRSP Management Office (MO) with technical input from the Technical Management Advisory Committee (TMAC) and substantial involvement by the USAID designated Cognizant Technical Officer (CTO).
- C. The LEAD INSTITUTION agrees that it will perform the services called for herein, and MSU agrees that it will compensate the LEAD INSTITUTION in the amount and under the terms and conditions enumerated in this Subagreement. MSU and the LEAD INSTITUTION further understand that this Subagreement consists of this document and the following Appendices:

- Appendix A, Standard Provisions for U.S. Nongovernmental Recipients; Required as Applicable Standard Provisions for U.S., Nongovernmental Recipients
- Appendix B, Technical Application - 33 months (January 1, 2010 to September 28, 2012)
- Appendix C, FY 2010 Project Workplan for the first 9 months (January 1, 2010 to September 30, 2010). Attached to the Workplan are "Semi-Annual Indicators of Progress" and "Performance Indicators for Foreign Assistance Framework and the Initiative to End Hunger in Africa" forms.
- Appendix D, Sub-agreement Budget and Cost Application Narrative for 33 months (January 1, 2010 to September 28, 2012)
- Appendix E, Host Country Institutional Letters of Willingness to Partner in the Dry Grain Pulses Collaborative Research Support Program.
- Appendix F, Marking and Branding Plan for the Dry Grain Pulses CRSP

- Appendix G, Dry Grain Pulses CRSP Expense Reporting Form
- Appendix H, Dry Grain Pulses CRSP International Travel Notification Form
- Appendix I, Dry Grain Pulses CRSP Request to Purchase Equipment Form
- Appendix J, "Report on the Achievement of Semi-Annual Indicators of Progress"

II. STATEMENT OF WORK

The LEAD INSTITUTION shall perform the activities and services described in the detailed project workplan submitted to the Pulse CRSP MO (for the obligation period January 1, 2010 – September 30, 2010) and, incorporated and appended hereto as Appendix C. The actual performance of that work shall conform in all aspects and be limited to the project proposal (Technical and Cost Applications) approved by the MO including:

- A. Specific objectives of the project;
- B. Expected inputs, outputs, and performance indicators of the project;
- C. Program and contractual relationships with designated collaborating U.S. and Host Country Institution(s);
- D. Fiscal and managerial responsibilities of the project consistent with the requirements of the prime award provisions incorporated in Appendix A of this subagreement; and
- E. Fiscal and administrative arrangements for the implementation of project activities at Host Country and U.S. sites.

Changes in any of the above work must be approved in writing in advance by the MO to ensure adherence to Global Program Themes and Objectives, appropriate relationships between collaborating institutions, and compliance as required under the terms of the Prime Award provisions incorporated in Appendix A of this subagreement.

III - PERIOD OF SUBAGREEMENT

The period of performance of this Subagreement shall be from January 1, 2010 through September 28, 2012, unless terminated earlier or extended by mutual written agreement of all parties.

Expenditures incurred prior to the beginning date or subsequent to the termination date are unallowable. All expenditures paid with funds provided by this Subagreement must be incurred by the LEAD INSTITUTION in pursuit of project objectives that take place during this period unless otherwise stipulated.

In the event of early termination, the LEAD INSTITUTION shall be reimbursed for all allowable costs incurred to the date of termination and for all allowable non-cancellable obligations, subject to availability of funds as described in XIV Termination and Suspension.

In the event the time prescribed herein should prove insufficient for the LEAD INSTITUTION to carry out the project objectives provided herein, MSU may provide such extension of the period of the Subagreement as may be deemed appropriate. Any extension will be effective only upon the execution of an amendment to the Subagreement for this purpose. All requests for extensions must be received in writing prior to the expiration date.

IV - AMOUNT OF SUBAGREEMENT

The total estimated amount of the Subagreement shall not exceed Nine Hundred Eighty Five Thousand Four Hundred Seventy One US Dollars (US\$985,471.00). MSU obligates the amount of Two Hundred Forty Four Thousand Seven Hundred Twenty Four US Dollars

(US\$244,724.00), as partial funding of the total estimated amount as set forth for the first nine-month period per the budget listed as Appendix D. Expenditures by the LEAD INSTITUTION may not exceed the total estimated amount or the obligated amount of this Subagreement, whichever is less.

Because this Subagreement is incrementally funded, funds obligated hereunder are only anticipated to be sufficient for project expenditures through approximately September 30, 2010. Revisions to the budget shall be made in accordance with 22 CFR 226.25 <http://www.usaid.gov/pubs/ads/22cfr226.doc> and Article V of this Subagreement.

Subagreement budgets by institutional allocations for the three Workplan periods of this project, FY 2010 (nine month period from January 1, 2010 through September 30, 2010, FY 2011) (October 1, 2010 through September 30, 2011) and FY 2012 (October 1, 2011 through September 28, 2012), as approved by the Dry Grain Pulses CRSP MO, are presented in Appendix D.

Additional funds up to the total amount of this Subagreement may be obligated by MSU subject to incremental obligations from USAID, satisfactory progress of the project, and relevance of activities to Pulse CRSP program goals.

V - ALLOWABLE COSTS

- A. For performance of this Subagreement, MSU shall reimburse the LEAD INSTITUTION for allowable costs that are reasonable, allocable and allowable in accordance with the terms of (1) this Subagreement, (2) OMB Circular A-21, "Cost Principles for Educational Institutions" in effect on the date of this Subagreement and all subsequent revisions, <http://www.whitehouse.gov/omb/circulars/a021/a021.html>, (3) OMB Circular A-110, "Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" in effect on the date of this Subagreement and all subsequent revisions, <http://www.whitehouse.gov/omb/circulars/a110/a110.html>, (4) 22 CFR226 in effect on the date of this Subagreement and all subsequent revisions, <http://www.usaid.gov/pubs/ads/22cfr228.doc>.
- B. Funds budgeted for equipment may not be expended without the prior written approval of the MO (See Appendix I for a Request to Purchase Equipment Form). Note that to be classified as equipment, individual items must have a useful life of more than one year and cost \$5,000 or more per item.
- C. Funds budgeted for expenditures in or on behalf of a Host Country Institution may not be rebudgeted to the LEAD INSTITUTION or to another Host Country Institution without the prior approval of the MO.
- D. Funds budgeted for training may not be rebudgeted without the prior written approval of the MO.
- E. Except for B, C, and D above, line items within the total approved budget may be adjusted, as reasonable and necessary, without the prior approval of MSU and the MO.
- F. When approved by the MO, amounts unexpended at the end of the budget year may be carried forward to the subsequent budget year within the period of performance of this Subagreement for expenditure on activities consistent with the approved workplan for that period.
- G. Indirect costs are allowable according to the LEAD INSTITUTION'S Negotiated Indirect Cost Rate Agreement (NICRA).

- H. Costs must be incurred in accordance with LEAD INSTITUTION'S established policies and procedures provided such policies and procedures promote the best interest of the project conducted under this Subagreement.
- I. Only those expenses incurred in accordance to the budget and during the period of the Subagreement may be reimbursed.
- J. Upon request by MSU, the LEAD INSTITUTION shall refund any amounts determined to be unallowable expenditures as a result of an audit by MSU or the Federal Government. The LEAD INSTITUTION, however, shall have the right to establish allowability of any such item of cost under this Subagreement.

VI – PAYMENT

The LEAD INSTITUTION must submit invoices for reimbursement at least quarterly but no more than monthly. Invoices shall indicate the period covered and provide detail commensurate with that appearing in the LEAD INSTITUTION'S budget. The invoices must be supported by an original and two copies of a certified expense report in accordance with Appendix G. The invoices must be in English, shall be numbered sequentially, shall reference Subagreement 61-2859, and shall be certified correct by the responsible financial official of the LEAD INSTITUTION. Invoices will not be paid unless accompanied by an expense report.

A FINAL invoice and expense report shall be submitted within forty five (45) days after the end of the period of the Subagreement indicated in ARTICLE III and it shall be marked "FINAL." The FINAL invoice shall be used as the final report of expenditures for the LEAD INSTITUTION and it shall contain a summary of expenses, by budget category itemized in Appendix D and the final amount of Cost Share reported. In no event shall the final billing of funds exceed the Subagreement amount specified in Article IV - AMOUNT OF SUBAGREEMENT.

Invoices and expense reports shall be submitted to:

Mr. Ben Hassankhani
Institute of International Agriculture
Dry Grain Pulses CRSP
321 Agriculture Hall
Michigan State University
East Lansing, MI 48824
USA
E-mail: hassankh@msu.edu

VII – COST SHARING

The LEAD INSTITUTION, for each period of performance, shall assure that expenditures from non-Federal funds equal or exceed 25 percent of the Federal funds provided by MSU/USAID. These expenditures will exclude obligations made to or on behalf of Host Country Institutions under Subagreements in furtherance of grant objectives. Prior and subsequent year's non-Federal contributions in excess of the aforesaid 25 percent, if any, may be applied to compensate for any year's shortfall.

Cost sharing will be in accordance with OMB Circular A-110 (as periodically updated), Subpart C, Section .23, <http://www.whitehouse.gov/omb/circulars/a110/a110.html>

VIII – WORK PLANS AND TECHNICAL REPORTS

The LEAD INSTITUTION shall prepare and submit Workplans and technical reports to the CRSP MO in such form and reasonable detail as prescribed by the CRSP MO and the prime award provisions incorporated in Appendix A of this subagreement.

- A. **WORKPLANS** shall be in accord with instructions from the CRSP MO.
- B. **INTERIM REPORTS** (which include Report on the Achievement of Semi-Annual Indicators of Progress, and Performance Indicators for Foreign Assistance Framework (FAF) and the Initiative to End Hunger in Africa (IEHA), and Annual Technical Progress Reports) under this Subagreement shall be in accord with instructions from the CRSP MO.
- C. **FINAL REPORTS** under this Subagreement shall be in accord with instructions from the CRSP MO and will be submitted to the MO within 45 days following the end of the period of performance of this Subagreement.

Work plans and technical reports shall be submitted to:

Dr. Irvin Widders
Institute of International Agriculture
Dry Grain Pulses CRSP
321 Agriculture Hall
Michigan State University
East Lansing, MI 48824
USA
E-mail: Widders@msu.edu

IX - SUBORDINATE AGREEMENTS

The LEAD INSTITUTION'S intention to enter into a subordinate agreement (either with a U.S. or a non-U.S. institution) for any of the work to be performed under this Subagreement must be identified in the LEAD INSTITUTION'S detailed annual project Workplan (Appendix C) and the detailed project budget which require MO approval (Appendix D). Any deviation from this condition requires the prior written approval of the MO.

All subordinate agreements with a Host Country institution/s **MUST** be in the form of a "Fixed Price Contract" that have the following required sections:

- a) Frequency of payments: 2 payments corresponding to predetermined deliverables for period 01/01/10 and 09/30/10.
- b) Amount of each incremental payment (first payment **MUST** not be less than 75%)
- c) Dates of payments
- d) Deliverables to release the first and subsequent payments (workplan, and one "Report on the Achievement of Semi- Annual Indicators of Progress")

A fully signed copy of any "Fixed Price Contract" under this Subagreement must be provided to the MO upon receipt of such a fully signed contract.

The LEAD INSTITUTION will make certain that any subordinate agreement that it may enter into for the performance of any part of this Subagreement will include the same terms and conditions regarding financial, property and operational reporting requirements as those to which the LEAD INSTITUTION is subject under the terms and conditions of this Subagreement. No subordinate agreement entered into by the LEAD INSTITUTION can release it from any obligation, responsibility or liability to MSU under this Subagreement.

X - AUTHORIZED GEOGRAPHIC CODES

The authorized geographic code for procurement of goods and services under this Subagreement is Code 000 (United States).

XI - TRAVEL

The USAID Agreement Officer's Technical Representative (AOTR) must be notified of all international travel funded under this Subagreement in advance of the commencement of the travel. Travel must make use of US carriers as indicated in the Standard Provisions attached hereto.

International Travel Notification Forms (Appendix H) must be submitted to the Management Office a minimum of twenty one (21) days prior to the departure date.

XII - AUDIT REPORTS

MSU and its authorized representative(s) may audit the invoices or vouchers. Each payment shall be subject to reduction and refund to MSU for amounts included in the related invoices or vouchers, which are found, on the basis of such audit, to constitute unallowable costs.

If any audit of the LEAD INSTITUTION'S records reveals that the LEAD INSTITUTION has not met its cost-sharing obligations with non-Federal funds under this Subagreement, MSU is authorized to request refund of a proportionate amount of expenditures.

The LEAD INSTITUTION agrees to comply with the requirements of OMB Circular A-133, Audits of Institutions of Higher Education and Other Nonprofit Institutions in effect on the date of this Subagreement and all subsequent revisions, <http://www.whitehouse.gov/omb/circulars/a133/a133.html>. The LEAD INSTITUTION further agrees to provide MSU with copies of any of the independent auditor's reports, which present instances of non-compliance with federal laws and regulations, which bear directly on the performance, or administration of this Agreement. In cases of such non-compliance, the LEAD INSTITUTION will provide copies of responses to auditors' reports and a plan for corrective action. All records and reports prepared in accord with the requirements of OMB Circular A-133 as appropriate shall be available for inspection by representatives of MSU, USAID or the U.S. Federal Government during normal business hours.

XIII - RECORDS

The LEAD INSTITUTION will maintain adequate financial records, in accordance with generally accepted accounting practices to clearly and easily identify expenses of the Subagreement, to describe the nature of each expense and to establish relatedness to this Subagreement. All records, books, documents and papers related to the project conducted under this Subagreement shall be available upon request at all reasonable times to inspection and audit by MSU, U.S. Agency for International Development, and by the National Science Foundation (MSU's cognizant Federal audit agency inspection or their authorized representatives). These records will be retained for a period of three (3) years, with the following qualifications.

- A. If any litigation, claim, negotiation, audit or other action involving the records has been started before the end of the 3-year period, the records shall be kept until all issues are resolved, or until the end of the regular 3-year period, whichever is later.
- B. The retention period starts from the date of the submission of the LEAD INSTITUTION'S final invoice.

XIV - TERMINATION AND SUSPENSION

- A. Termination for Cause - This Subagreement may be terminated in whole or in part at any time before the date of completion, whenever it is determined that the LEAD INSTITUTION has failed to comply with the conditions of the Subagreement. MSU shall promptly notify the recipient in writing of the determination and reasons for the termination, together with the effective date. Payments made to the LEAD INSTITUTION or recoveries by the Federal sponsoring agency under grants or other Subagreements terminated for cause shall be in accordance with the legal rights and liabilities of the parties.
- B. Termination for Convenience - This Subagreement may be terminated in whole or in part when the continuation of the project would not produce beneficial results commensurate with the further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial terminations, the portion to be terminated. The LEAD INSTITUTION shall not incur new obligations for the terminated portion after the effective date, and shall cancel as many outstanding obligations as possible.
- C. Termination or Suspension for Changed Circumstances. If at any time USAID or MSU determines that continuation of all or part of the funding for a project should be suspended or terminated because such assistance would not be in the national interest of the United States or would be in violation of an applicable law, then MSU, may, following notice to the LEAD INSTITUTION, suspend or terminate this Subagreement in whole or part and prohibit LEAD INSTITUTION from incurring additional obligations chargeable to this Subagreement other than those costs specified in the notice of suspension during the period of suspension. If the situation causing the suspension continues for sixty (60) days or more, then MSU may terminate this grant on written notice to the LEAD INSTITUTION and cancel the portion of this Subagreement which has not been disbursed or irrevocably committed to the LEAD INSTITUTION.
- D. Termination Procedures. Upon receipt of and in accordance with a termination notice as specified in A. or B. above, the LEAD INSTITUTION shall take immediate action to minimize all expenditures and obligations financed by this Subagreement and shall cancel such unliquidated obligations whenever possible. Except as provided below, no further reimbursement shall be made after the effective date of termination. The LEAD INSTITUTION shall within thirty (30) calendar days after the effective date of such termination repay to MSU all unexpended funds which are not otherwise obligated by a legally binding transaction applicable to this Subagreement. Should the funds paid by MSU to the LEAD INSTITUTION prior to the effective date of the termination of this Subagreement be insufficient to cover the LEAD INSTITUTION'S obligations in the legally binding transaction, the LEAD INSTITUTION may submit to MSU within sixty (60) calendar days after the effective date of such termination a written claim covering such obligations. The MSU grant officer shall determine the amount(s) to be paid by MSU to the LEAD INSTITUTION under such claim in accordance with the applicable cost principles.

XV – DISPUTES

Conflicts between any of the Appendices of this Subagreement shall be resolved by applying the following descending order of precedence:

This Subagreement
Appendix A – Mandatory Standard Provisions
Appendix B – Project Description

Except as otherwise provided in this Subagreement, all claims, counter-claims, disputes and other matters in question between MSU and the LEAD INSTITUTION arising out of or relating to this Subagreement or the breach thereof may be decided by arbitration if the parties hereto mutually agree, or in a court of competent jurisdiction.

XVI – LIABILITY

Each party to this Subagreement must seek its own legal representative and bear its own costs, including judgments, in any litigation that may arise from performance of this Subagreement. It is specifically understood and agreed that neither party will indemnify the other party in such litigation.

XVII - ASSURANCES

Debarment and Suspension. LEAD INSTITUTION certifies that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any US Federal department or agency. By signing this Subagreement, the LEAD INSTITUTION makes this certification.

Lobbying. LEAD INSTITUTION agrees to comply with the requirements of OMB Circular A-21, Principles For Determining Cost Applicable to Grants, Contracts, and Other Agreements with Educational Institutions, regarding lobbying. By signing this Subagreement, the LEAD INSTITUTION, makes this certification.

Delinquent Federal Debt. LEAD INSTITUTION certifies that it is not delinquent on the repayment of any U.S. Federal debt.

Drug-Free Workplace. LEAD INSTITUTION certifies that it will provide a drug-free workplace.

Clean Air Act and the Federal Water Pollution Control Act. LEAD INSTITUTION agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended. Violations shall be reported to MSU, USAID and the Regional Office of the Environmental Protection Agency (EPA).

XVIII - INDEMNIFICATION

The LEAD INSTITUTION (Iowa State University); Board of Regents, State of Iowa; and the State of Iowa agrees to hold harmless MSU, its officers, agents and employees from and against any and all claims, losses, liability, costs, or expenses, arising out of bodily injury of any person including death, or property damage arising from the conduct of our activities in connection with the performance of this SUBAGREEMENT where such liability is founded upon

or grows out of the acts or omissions of any of the officers, employees, or agents of Iowa State University while acting within the scope of their employment under Chapter 669 of the Code of Iowa.

XIX - AMENDMENTS

All mutually agreed upon changes to this Subagreement must be processed through the MSU Office of Contract and Grant Administration at the following address:

Ms. Diane Cox
Contract and Grant Administrator
Michigan State University
Contract and Grant Administration
301 Administration Building
East Lansing, Michigan 48824
Telephone: 517-355-5040 x 243
Fax: 517-353-9812
cox@cgmsu.edu

XX - TITLE TO PROPERTY

Title to property including equipment, acquired hereunder shall vest in the LEAD INSTITUTION, subject to the requirements of 22 CFR Part 226, <http://www.usaid.gov/pubs/ads/22cfr226.doc>, regarding the use, accountability, and disposition of such property.

Purchase of equipment and vehicles (vehicle is defined as an item having a motor, seat(s) and wheels) requires prior approval of the MO. See Appendix I for a Request to Purchase Equipment form.

XXI - PATENTS AND INVENTIONS

The Department of Commerce regulations entitled "Rights in Inventions Made by Nonprofit Organizations and Small Business Firms" set forth in 37 CFR Part 401 and CIB 99-19 shall govern rights, title, disclosure, filings, etc., of any invention resulting from the work performed by the LEAD INSTITUTION hereunder. The LEAD INSTITUTION agrees to comply with and to be bound by the terms and conditions of these patent regulations.

If necessary, a separate Research Agreement may be negotiated between MSU and the LEAD INSTITUTION.

LEAD INSTITUTION will ensure that the terms of this Agreement are agreed to by all persons who perform any part of the work under this Agreement and who may be reasonably expected to develop intellectual property.

LEAD INSTITUTION will ensure that all such parties waive any rights to block release, dissemination, or publication of any results from the project.

The LEAD INSTITUTION will supply MSU with three hard copies plus an electronic copy if available of each publication funded in part or whole, from this project.

The LEAD INSTITUTION hereby agrees to comply with the AAPD 05-11 "MARKING UNDER ASSISTANCE INSTRUMENT". For a complete review of this policy please visit: http://www.usaid.gov/business/business_opportunities/cib/pdf/aapd05_11.pdf and the attached Appendix F (Marking and Branding Plan for the Dry Grain Pulses CRSP).

XXII. CARE OF LABORATORY ANIMALS

If the Standard Provision entitled "Care of Laboratory Animals" (Appendix A) applies to this Subagreement, LEAD INSTITUTION shall include the certificate required by paragraph (c) of said Standard Provision in all of its reports which pertain to the use of laboratory animals.

XXIII. USE OF HUMAN SUBJECTS

If the Standard Provision entitled "Protection of the Individual as a Research Subject" applies to this Subagreement (see Section 7, Required as Applicable Standard Provisions for U.S. Nongovernmental Recipients, included as Appendix A), the LEAD INSTITUTION shall provide written assurance that it will abide by this policy for all research involving human subjects supported by MSU and USAID. The LEAD INSTITUTION will submit this written assurance with the Grain Pulse CRSP Expense Reporting Form for the period ending September 30 for each year of this project.

XXIV - TRAINING

Participant training under this Subagreement is to be conducted according to Article 13 of the Required Applicable Standard Provisions for U.S., Nongovernmental Recipients attached hereto as Appendix A. Participant Training under this award shall comply with the policies established in ADS 253, "Participant Training" in effect on the date of this Subagreement and all subsequent revisions.

The PI must provide the MO with a yearly summary of all training activities as per the instructions by CRSP MO.

XXV – PUBLICATIONS

Provided that any publication is first offered to Michigan State University, LEAD INSTITUTION shall have the unrestricted right of publication with reference to its activities and findings in connection with the program. USAID and MSU retain a royalty-free-non-exclusive and irrevocable right to reproduce, publish, translate or otherwise use, and to authorize others to use such material for internal, non-commercial research purposes.

LEAD INSTITUTION will ensure that the terms of this Agreement are agreed to by all persons who perform any part of the work under this Agreement and who may be reasonably expected to develop intellectual property.

LEAD INSTITUTION will ensure that all such parties waive any rights to block release, dissemination, or publication of any results from the project.

The LEAD INSTITUTION will supply MSU with three hard copies plus an electronic copy if available of each publication funded in part or whole, from this project.

The LEAD INSTITUTION hereby agrees to comply with the AAPD 05-11 "MARKING UNDER ASSISTANCE INSTRUMENT". For a complete review of this policy please visit: http://www.usaid.gov/business/business_opportunities/cib/pdf/aapd05_11.pdf and the attached Appendix F (Marking and Branding Plan for the Dry Grain Pulses CRSP).

XXVI – ANTI-TERRORISM

LEAD INSTITUTION is reminded that U.S. Executive Orders and U.S. Law prohibit transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the LEAD INSTITUTION to ensure compliance with these Executive Orders and laws. This provision must be included in all Lower tier Subagreements issued under this Subagreement. A list of individual and organizational names that are the subject of this Executive Order can be found at the web site of the Office of Foreign Assets Control (OFAC) within the U.S. Department of Treasury. The address for this web site is <http://treasury.gov/ofac>

XXVII - PARTIAL INVALIDITY

If any provision of this Subagreement or the application thereof to any person or circumstance, shall to any extent be invalid or unenforceable, the remainder of the Subagreement or the application of such provision to persons or circumstances other than those to which it is invalid or unenforceable shall be unaffected thereby and each provision of the Subagreement shall be valid and enforceable to the fullest extent permitted by law.

XXVIII - COMPLIANCE WITH LAWS

The LEAD INSTITUTION agrees to comply with all laws, statues, regulations, rulings or enactments of any Governmental authority that are applicable to the work described in Appendix C of this Subagreement or which in any way pertain to said work.

XXIX - KEY PERSONNEL

The Principal Investigator of this project is Dr. Mark Westgate from the LEAD INSTITUTION. The Principal Investigator for MSU is Dr. Irvin Widders. The Principal Investigators are not authorized to change any element of this Subagreement. All changes shall be consummated by formal written amendment and processed according to Article XIX.

If Dr. Mark Westgate ceases to serve as Principal Investigator of this project, the decision as to continuance of this Subagreement will be made by MSU on the basis of information supplied by the LEAD INSTITUTION.

XXX - ENVIRONMENTAL IMPACT REPORTS

If it appears that outputs of this project will result in an adverse environmental impact, the LEAD INSTITUTION shall notify MSU prior to implementation, in order to allow for orderly preparation of an environmental impact statement. The LEAD INSTITUTION shall assure that appropriate U.S. Government, USAID, and/or host country procedures are followed.

XXXI – FORCE MAJEURE

Should the LEAD INSTITUTION be delayed or prevented, in whole or in part, from performing any obligations or conditions hereunder or from exercising its rights by reason of or as a result of any Force Majeure, the LEAD INSTITUTION shall be excused from such obligations or conditions and the term of this Subagreement shall be extended at no additional cost to ME and continued while the LEAD INSTITUTION is so delayed or prevented. The term "Force Majeure"

as used herein means acts of God, strikes, lockouts, or other industrial disturbances; act of public enemies, blockades, wars, insurrections, or riots; epidemics, landslides, earthquakes, fires; storms droughts; floods or washouts; arrest, title disputes, or other litigation; governmental restraint, either state, civil or military, civil disturbances; explosions, inability to obtain necessary materials, supplies, labor, or permits due to existing or future rules, regulations, orders, laws, or proclamations, either state, civil, or military; and other causes beyond the reasonable control of the party so delayed.

LEAD INSTITUTION will use its best efforts to avoid the cause(s) of such delay, shall give written notice of any such delay to MSU as soon as practicable, and shall resume its performance promptly after the removal or cessation of the cause(s) of delay. In the event that excusable delay shall continue for a period of more than three (3) consecutive months, then either party may at any time after that period terminate this agreement upon written notice to the other party while the cause(s) of delay continue.

XXXII - ENTIRE SUBAGREEMENT

It is expressly agreed by the parties hereto that for the work hereunder, this Subagreement constitutes the entire and only Subagreement between the parties.

XXXIII - ALTERATIONS TO STANDARD PROVISIONS, APPENDIX A

It is understood and agreed that as used in these standard provisions,

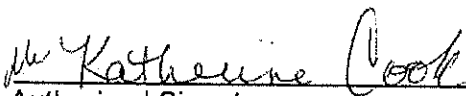
References to "grant" shall mean this "Subagreement."

References to "grantee" shall mean "LEAD INSTITUTION."

References to "USAID," "Government" or "U.S. Treasury" shall mean MSU.

IN WITNESS THEREOF, MSU and Iowa State University have executed this Subagreement.

MICHIGAN STATE UNIVERSITY

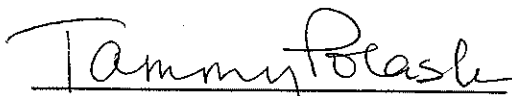

Authorized Signature

Katherine Cook
Senior Contract & Grant Administrator

30 March 2010

Date

IOWA STATE UNIVERSITY



Authorized Signature
Tammy Polaski
Associate Director
Office of Sponsored Programs Administration
Iowa State University

Typed Name and Title

4/1/2010

Date