

BARD

United States - Israel

Binational Agricultural Research and Development Fund



Research Proposals

Guidelines and Regulations for Applicants

(updated August 2008)

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Table of Contents

NOTE: items marked in bold have been changed since the last submission and must be adhered to in the September 8, 2008 submission.

Mission	1
Cooperative Research Typical Grant Feasibility Studies	
BARD Priorities	
Eligibility.....	2
Investigators (PI, Co-PI and Collaborating) Concurrent Funding Policy	
Revised Proposals	3
Continued Proposals	
Regulatory Agency Requirements	4
Submission Date	
Disclosure of Additional Funding Resources	
The Proposal: General Format & Technical Requirements	
Cover Pages (including priority identification and evaluation panel)	
Table of Contents	
Abstract	
List of Abbreviations	
Declaration of Revision	
Declaration of Continuation	
Detailed Description of the Research Plan (limited to 15 pages)	5
Description and significance of the expected results	
Timetable of the Work Plan	
Details of Cooperation	
Facilities	
Relevant Bibliography	
Curriculum Vitae	
Addenda to the Proposal – in press articles	
Budget.....	6
Budget Summary Table	
Description of the Budget	
Useful Suggestions for a Successful Proposal	
Evaluation Procedures	7
Review Panels	
The Technical Advisory Committee	
The Board of Directors	8
Notification of Awards	

Proposal Application is via the on-line website ONLY.

No additional forms are required.

No *in press* attachments allowed

Mission

BARD supports mission-oriented cooperative agricultural research projects of mutual interest to the United States and Israel. Projects cover all phases of research and development, including integrated projects and strategic or applied research. The outcomes of BARD funded Research must be accessible to the public.

Cooperative Research

Cooperative research entails *active* collaboration between Israeli and American scientists. Upon request, BARD will assist scientists in finding cooperators. Please send a brief abstract by e-mail. Identify the main ideas of the proposed work and include a short c.v.

Typical Grant

The average BARD grant is \$300,000 for a three year award. Awards are based upon the details of the budget justification, the number of funded institutions in the proposed project and the nature of the specific research program. In addition, BARD encourages the exchange of postdoctoral and graduate students to work on related projects in the collaborators' laboratories. The applicants should refer to BARD's postdoctoral fellowship and graduate student fellowship programs available on the BARD website for additional information.

Feasibility Studies

BARD will consider funding a one year proposal when the request is for an opportunity to establish a basis for further research or to provide preliminary results for a particularly innovative idea or concept. Feasibility study applications must follow the same guidelines as standard proposals and adhere to the same submission dates. Funding for a one year feasibility study is \$100,000.

BARD Priorities

While BARD will continue to fund agriculturally relevant and scientifically meritorious work in all traditional disciplines of agriculture, BARD proposals are also scored in terms of their relevance to one or more of the following areas, identified by the Board of Directors as top priorities for the coming years.

- **Increased Efficiency of Agricultural Production:** including sustainable development, efficient use of resources, economic evaluation of policies and regulatory issues, crops that yield higher value per unit, etc.
- **Protection of Plants and Animals Against Biotic and Abiotic Stress:** including pest genetics in biological environments, invasive species and emerging diseases, tolerance to drought, salinity, high temperature & nutrient stresses, etc.
- **Food Quality, Safety and Security** including improved assessment & detection methods, food nutritive value in relation to human health, functional foods, ensured / increased quantity/supply, postharvest treatments, etc.
- **Water Quality & Quantity** including efficient use of low quality water (gray, black, saline), improved economic return for water in agriculture, crop response to soil & water quality, impact of nutrients on water quality, etc.
- **Functional Genomics and Proteomics** including production and protection traits, genetic optimization, increased yield, model systems, etc.
- **Sensors and Robotics** linking biological phenomena with sensors or otherwise bridging into the field of bioengineering, nano-technology, precision agriculture, labor reduction, etc.
- **Sustainable Bio-Energy Systems** including biofuel production systems, reduced energy costs, renewable resources, reduced greenhouse gases, diversified farm economy, etc.

Eligibility

Affiliates of public or private non-profit research institutions that demonstrate the necessary research and development capabilities are eligible for funding. Proposals must be submitted through such legally constituted institutions.

BARD postdoctoral fellows: For one year following the conclusion of the BARD fellowship, recipients are ineligible to submit a BARD research proposal as either the principal investigator (PI) or co-principal investigator (co-PI) affiliated with an institution in the mentor's country. Fellows are eligible to submit as a PI or co-PI only if affiliated with an institution in their own home country, or as collaborating investigators (requesting less than \$20,000 per year) with affiliation from either country.

Investigators

Principal Investigator (PI) is that person whose name appears **FIRST** on the cover page of the proposal. The PI is mutually agreed upon by the cooperating scientists and is responsible for the submission of scientific reports, administration of the grant, notification of changes in the work plan and maintaining contact with BARD. The affiliated institution of the PI becomes the *principal institution* and signs a research agreement with BARD.

Co-principal Investigator (co-PI) is that person whose name appears **SECOND** on the cover page of the proposal. The co-PI is the senior member of the investigating team in the *other* country.

Collaborating Investigators are all other investigators, in either country, who are listed on the cover page and are neither the PI nor co-PI.

Concurrent Funding Policy

BARD will **not** fund more than one concurrent project with the same (or very similar) team of investigators (from either or both countries). These restrictions apply to all PIs and co-PIs, as well as to collaborating investigators who request more than \$20,000/year of the research budget.

While proposals may be submitted during the final year of an on-going project, if such a proposal is approved, funding of the new proposal will not begin until the conclusion of the on-going project. This means the receipt and approval by BARD of the final scientific report of the earlier project. On-going projects, whether related or on a different topic, will not be granted any extension and the Final Scientific report must be presented and approved by BARD not later than October 31st; new projects must be initiated not later than December 31st of the award year.

- A PI or co-PI may submit more than one proposal in a given year, provided that the proposals are pursuing different topics. However, if multiple proposals from the same PI/co-PI are deemed worthy of funding, only **ONE** of these may be funded.
- Scientists planning to submit more than one proposal must inform all scientists involved in all proposals of the intent to be involved with additional proposals. BARD will confirm to submitting scientists, upon receipt of the proposals, that a member of their team has also submitted additional proposals for consideration in the same year and that only one of these can be funded.

Revised Proposals

Revised proposals are previously submitted proposals that were not funded. Indicate the BARD assigned number of the previous proposal in the appropriate box on the Title Page. The addition of a new investigator, in itself, does not indicate a 'new' proposal. . In any case, BARD reserves the prerogative of identifying a given proposal as 'revised' or 'new'. This will be done by comparing the content of the current proposal with the earlier one. Should it not be obvious that it is substantially different, BARD will ask an expert in the field to provide an opinion on this issue.

Unsuccessful proposals may be revised and resubmitted only once. PIs or co-PIs are encouraged to consult with the Executive Director before submitting a revised proposal. The decision of whether to submit a revision should be based on the evaluation material, particularly on panel summaries, recommendations and quadrant number.

Below are some pointers to assist you in making the decision. Its purpose is neither to encourage nor discourage resubmission.

Do revised proposals receive special consideration?

No. All proposals are reviewed and prioritized relative to all others in the *current* submission and without regard to their status during an earlier submission.

Are revised proposals more likely to receive funding?

No. Our statistics indicate that a revised proposal has the same chance of success or failure as any other.

Are the same evaluators involved in both the original and the revised proposal?

Yes and No. Revised proposals are re-sent to some of those original reviewers who had *substantive criticisms* regarding a given aspect(s) of the original proposal. Such reviewers receive a copy of their original review and are specifically requested to consider whether the points made in their criticisms have been satisfactorily addressed. The revised proposal is *also* sent to new reviewers.

Investigators can request that the revised proposal not be re-sent to specific reviewers. This request should be sent to BARD at the time of submission.

What are the most important points to consider in revision?

- Specific criticisms made by panels and ad hoc reviewers regarding the original proposal.
- Addition of new preliminary results that impact and strengthen the original presentation.

Continued Proposals

Continued proposals are those which relate to one or more previously supported BARD project(s), wherein at least one of the original investigators participates. Such proposals may be directly related to the previous project, or may represent a natural progression in the research efforts of the lab(s) involved and thereby contain innovative hypotheses that build upon the work previously funded by BARD. Indicate the BARD assigned number of the previous project (available from the BARD office). If the previous project has not yet terminated, please refer to the "concurrent funding policy" above or consult with BARD regarding possible restrictions. Refer to the section 'The Proposal' for details regarding the 'declaration of continuation' to be included in such proposals.

Regulatory Agency Requirements

Proposals and grants must adhere to the policies and regulations established by the regulatory agencies of the country in which the research is to be conducted. *Exchange of GMO materials and exotic species between countries may require special authorization.* The signature of the authorized officer of the research authority indicates that these policies and regulations were met.

Submission date: Monday, September 8, 2008.

- ⇒ **Pdf file** of the complete proposal, including the Abstract, is to be uploaded to the BARD website (www.bard-isus.com)
- ⇒ **The Cover Page and Budget tables** are to be generated from the BARD on-line submission process and incorporated into the proposal file.
- ⇒ *In addition*, the **Abstract File** (rtf, doc, docx) is to be uploaded on-line as a separate file.
- ⇒ **Disclosure of Additional/Pending Funding Resources** – the PI and co-PI will complete this form on-line.
- ⇒ **Authorization (formerly Signature pages)** will be performed on-line by the research authority, following review by the institution's authorizing officer. BARD will accept a proposal for consideration **ONLY** following its authorization by the institution's authorizing officer via the on-line procedure.
- ⇒ **Five Hardcopies**, *identical to the electronic version*, are to be hand delivered or sent by courier to BARD office, post marked no later than the submission date.

The Proposal

Format Requirements: English, line spacing of 1.5, font equivalent of 12, margins that allow photocopying (~ 2.5 cm all around). Number pages. Staple the proposal once only, in the upper left corner. Do not bind.

Technical Requirements: Include the following items and headings. (If the logic of your proposal so suggests, change the exact heading or order of the items.)

- **Abstract** - (uploaded as a separate file). Do not exceed one page. Clearly state the definition of the research problem, the objectives, the expected contribution to agriculture / environment and the proposed methodology.
- **Table of Contents** – including page numbers and section headings identified in the guidelines.
- **List of Abbreviations** used in the proposal.
- **Declaration of Revision** (if relevant) Authors of revised proposals are encouraged to take advantage of this opportunity to use up to two pages to address the changes presented in the revised proposal. Reviewers and panels will relate to this declaration in reaching a recommendation for the new proposal. Carefully consider and relate to the comments of the panels and reviewers regarding the original proposal. Integrate preliminary results achieved since the original submission that can strengthen the revised proposal.
- **Declaration of Continuation** (if relevant) Do not exceed two pages of text and a list of publications originating from the previous project. Authors of proposals for continued

funding are expected to take advantage of the opportunity to use up to two pages to address the *innovation* in the new proposal: how does it continue a line of research in a laboratory. Also bring to the table new issues, important challenges and cutting edge science. Authors should briefly describe the status and achievements of the previous project(s) and clearly justify the requested budget. It is generally assumed that less funds are required for a project that will be conducted in an already well established laboratory on a previously funded research area and often, by an already established team.

- **Detailed Description of the Research Plan** - *Limited to 15 pages, including figures, photos and any additional material.* Adhere to general format requirements. Include the following items, numbered logically to suit the best presentation of your proposal. Text, tables, figures, etc. *are* counted in the 15 page maximum.
 - I. Statement of the research problem and its general background.
 - II. Concise outline of specific, feasible research objectives.
 - III. Hypotheses and their rationale.
 - IV. Preliminary results.
 - V. Research plan.
 1. Strategies, procedures and methodologies used in addressing the questions asked.
 2. Specific experiments to be conducted and a discussion of their potential pitfalls and possible alternatives.
- **Description of the expected results** and their relevance to BARD's priorities and mission.
- **Timetable of the Work Plan** – describe the division of the research tasks between the Israeli and US participants for each year of the project. A graphic or tabular presentation is recommended.
- **Details of Cooperation** – The proposal, jointly prepared, should clearly indicate the anticipated cooperative endeavors between the partners, including the work to be done in each country and the responsibility of each collaborator. Explain how the cooperating scientists contribute their expertise to the joint effort and whether joint publications are planned.

Quality of Cooperation is scored by reviewers and panels in their evaluation of the proposal. Types of cooperation are defined below. The highest value is given to synergistic cooperation.

 - ⇒ *Synergistic*: Each scientist contributes a specific expertise, facility, or equipment that the other partner can not contribute and without which the final realization of hypothesis testing could not be achieved.
 - ⇒ *Complementary*: Each scientist performs essentially the same research using different (biological) systems or methods, thus, widening the scope and strengthening the validity of the results.
 - ⇒ *Supportive*: Collaborators with essentially the same expertise divide the research tasks between the laboratories.

- **Facilities** – briefly detail the facilities to be dedicated to the project.
- **Relevant Bibliography** - include all authors, full title, date, journal name, volume and page numbers. When referencing citations in the text of the proposal, use author(s) names, not the number in the list.
- **Curriculum Vitae: Do not exceed two pages for each investigator.** Provide a *brief* professional biography. Include academic background, research experience, recent, relevant publications, inventions or patents, other achievements.
- **Addenda to the proposal are not allowed.** *In press* articles can be referred to in the relevant biography, with the note that copies can be obtained from the BARD office or with the relevant journal web address.
- **Letters** *specifically* confirming additional materials, facilities, know-how, etc. may be included. General letters of support for the idea or concept are *not* allowed.
- **Budget**

Budget Summary Table: (completed online) BARD pays each institution directly. Thus, a summary table, in the format provided, is required for each funded institution. Use additional columns (or tables) as necessary. Round annual totals to the nearest \$1,000, and individual budget items to the nearest \$100. First year budget may not exceed 36% of the total budget, unless specifically allowed in advance. Overhead expenses may not exceed 20% of the total direct costs.

Description of the Budget – Present a separate budget for each institution and year of the grant period. The budget is in US dollars. BARD will not consider requests for additional funding in the life of the grant due to price increases. You are expected to incorporate c-o-l and other increases in the initial computation of the grant. Include the following items in the budget description and justify:

1) *Personnel services: Salaries:* PI's and Co-PI's who are paid a salary (9 months or more) by their institution, are not entitled to receive salaries from the BARD grant. Support personnel can receive salaries and social benefits in proportion to the time devoted to the research project.

When in doubt, please refer to the BARD office. Specify the percentage of salary that is received as salary from the employing institution and the percentage dependant upon soft money. Indicate the percentage of time to be devoted to the project by each person.

List support personnel or their role in the project. Support personnel can receive salaries and social benefits in proportion to the time devoted to the research project.

2) *Non-expendable equipment:* BARD allows the purchase of specific items of equipment to be used in the supported research and without which the research project cannot be conducted. Large capital expenditures are not included in BARD's obligations to recipients.

3) *Operating expenses:* Present general operating expenses and a list of estimated costs. Include in-country travel, computer services and supplies. Provide a detailed breakdown and justification when requesting substantial funds.

4) *Foreign travel:* BARD allows one trip to each country per project (two trips only). Per Diem is allowed in accordance with the terms prevailing in the investigator's institution.

Useful Suggestions for a Successful Proposal

- The **abstract** should offer concise information to those in the evaluation process who will not see the full proposal. Give great care to its preparation.

- The most **important aspects** are scientific merit, relevance to agriculture and quality of collaboration. The review process focuses on the objective evaluation of these aspects. Argue them well and present them thoroughly.
- The most **common criticisms** are 'vague', 'overly ambitious' or 'unfocused'. Present clear objectives, well founded hypotheses and work plans that address the stated objectives. Do not exaggerate the benefits to agriculture.
- BARD is a **mission oriented** funding agency: aim to solve a specific agricultural/environmental problem.
- Careful **proof reading** is essential for professional evaluation of the proposal. Give careful attention to correct citations of the literature, spelling and quality photocopying.

Evaluation

Proposals will be evaluated in one of the following review panels. Investigators can suggest a panel assignment, but BARD will make the final assignment based upon factors of panel makeup and relevance to a primary discipline. In May 2008, BARD's Board of Directors adjusted the evaluation panels to the following areas:

- Animal Production
- Animal Health
- Crop Production
- Crop Health
- Food Products - Quality, Safety, Security
- Environment & Renewable Resources
- Agricultural Innovation & Engineering Technologies

Panels evaluate proposals simultaneously and independently in the United States and in Israel. Panel members are scientists competent in the relevant area of research. Each panel participates in the selection of outside reviewers to evaluate each proposal. Both panels receive all the reviews. The *ad hoc* reviews assist the panels to formulate their recommendations regarding the proposals.

Panel members prioritize all proposals in their panel in the final step of their evaluation. Each country's panel prepares a written recommendation for each proposal that is based upon consideration of the following factors:

- scientific and technological merit of the proposal
- feasibility of the objectives
- relevance to the stated current priorities of BARD
- anticipated benefits to agriculture and or the environment in both countries
- quality of the cooperation between the investigators
- suitability of the investigators and their facilities
- requested budget in relation to the research plan
- justification for continuation, when relevant

Suggested/Restricted reviewer names: Investigators can submit a *short* list of potential reviewers for BARD's consideration. Likewise, a *brief* list of persons to whom the proposal should not be sent for review can be included. In both cases, the list must include specific names (not everyone in a department or laboratory). The address, including e-mail, of the listed persons must be included. This short should be sent to BARD by the submission date.

The Technical Advisory Committee (TAC)

The Technical Advisory Committee is composed of five American and five Israeli senior scientists; the Executive Director is an *ex officio* member and responsible for appointment of the TAC, in consultation with the Board. Members are appointed on a rotating basis to allow for continuity and representation of all the relevant areas of expertise. TAC prepares a comprehensive portfolio of recommendations that is based upon the evaluations and recommendations of the panels in the two countries, for all the proposals in the submission. This recommendation includes an interdisciplinary priority ranking of the proposals. The Executive Director presents this recommendation to the Board of Directors for their consideration and decision regarding funding.

The Board of Directors

The Board of Directors makes all funding decisions.

Notification of Awards

The Executive Director advises all applicants and their affiliated research officers, in writing, of the decisions of the Board of Directors during May of the year following the submission. Favorable decisions indicate the amount and duration of the grant and any conditions of support.

Initiation of Awards

Follows contract signature and can follow immediately upon receipt of the notification. Generally, the budget is reviewed and, where necessary, adjusted to the sum awarded. The scientists and their institution decide upon a *single* start date for the project and the first payment is made to enable the work to begin at that time. The principal institution signs the contract, following which each of the other funded institutions receive a Letter of Agreement and their first payment. For further details, see BARD's Grant Management Guidelines on the website www.bard-isus.com