



# Citrus Research Board

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June 15, 2009

## CALL FOR PROPOSALS FOR 2010

To: Interested Research Project Leaders

Re: 2010 NEW AND CONTINUING RESEARCH PROPOSALS  
for the **CITRUS RESEARCH BOARD (CRB)**

The Citrus Research Board is accepting proposals for new research and continuing projects in the interest of the California citrus industry for the 2010 funding cycle, which is November 1, 2009 through October 31, 2010.

The enclosed RFP document describes general areas of research needs and specific items of interest. There are two sets of instructions, one for new research and another for continuing projects and progress reports. Be sure to give the entire document your careful attention because the instructions are detailed and the deadlines are firm. You will note that for new proposals the initial step is a pre-proposal concept letter, and for concepts that are moved ahead in the process the second step is a full Research Grant Proposal in the specified format. The Proposal form for 2009-2010 and the 2008-2009 Progress Report form are on the CRB website under "Request for Proposals and Progress Reports" and can also be sent to you by email by contacting [Info@citrusresearch.org](mailto:Info@citrusresearch.org).

I will be happy to answer any questions you may have.

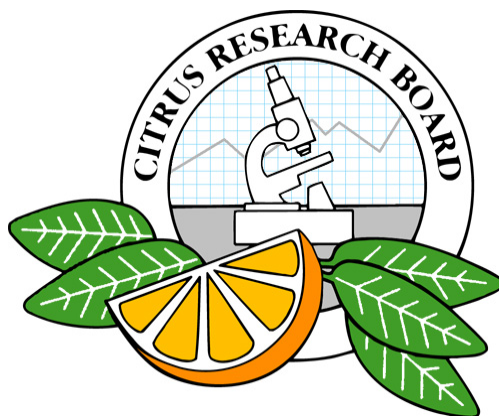
Sincerely,

/s/

Ted A. Batkin  
Citrus Research Board President  
and

Donald A. Cooksey, College of Natural and Agricultural Sciences, UC Riverside  
Divisional Dean, Agriculture and Natural Resources and University of California Liaison Officer  
Enclosures

cc: UCR-AES Department Chairs, MSOs, UC Berkeley/Associate Dean Research,  
UC Davis/Associate Dean Research



## **Citrus Research Board**

**June 15, 2009**

### **Request for Proposals for 2010**

**for funding period November 1, 2009 – October 31, 2010**

Request for Progress Reports on 2009  
covering November 1, 2008 – October 31, 2009

*Specific instructions  
for preparing and submitting new proposal concept letters,  
full proposals, and progress reports begin on page 4*

#### **Calendar:**

*New Project Concept Letters (Pre-Proposals) due: Tuesday, July 14, 2009*

*Full Proposals for Continuing Projects due: Friday, July 31, 2009*

*Full Proposals for New Projects due: Friday, August 7, 2009*

*New Proposal Priority Screening Presentations: August 20 and 21, 2009*

*Proposal Presentations: September 16 and 17, 2009*

**Citrus Research Board  
RFP for 2010**  
(funding period November 1, 2009 – October 31, 2010)

**1. CRB Strategic Plan**

This RFP is based on a new CRB Strategic Plan which was developed through a process of industry input in 2008 and formally adopted by the Board in January 2009. This new Strategic Plan, which the Board will use as a guide in shaping the direction of research activity, is a departure from earlier CRB strategic plans because it lays out more general areas of need for the California citrus industry as opposed to a detailed listing of specifics.

***For this funding cycle, CRB is inviting proposals for continuing projects and also pre-proposal concept letters for new research in the interest of the California citrus industry.***

*You will note that the CRB Strategic Plan “core elements” (below and on pages 3-4) describe areas of emphasis that are quite broadly defined and could potentially include any number of subjects for research. Also be aware that CRB encourages investigators to submit concepts for research that could enable the industry to take advantage of new or unusual approaches or new scientific directions.*

*Please circulate this information to others you think would be interested. The Board generally looks very favorably on projects that involve collaboration and the integration of research efforts. Contact the Citrus Research Board office by phone at (559) 738-0246 or by email to [Info@citrusresearch.org](mailto:Info@citrusresearch.org) for further information or guidance.*

**Below are the core elements of the 2008 CRB Strategic Plan, with additional notes on subjects of particular interest:**

***Mission:*** *Develop knowledge and build systems for grower vitality. Focus on quality assurance, clonal protection, production research, variety development, and grower/public education.*

***Core Values:***

- *Provide benefits to all growers who contribute to the organization*
- *Base knowledge and systems on sound science*
- *Maximize benefit from resources invested*
- *Develop/provide tools that enhance the industry’s ability to deliver safe, quality products to the marketplace that are responsive to consumers*
- *Communicate with stakeholders*

***Objectives and Priorities:*** *The priority areas for the Citrus Research Program have been realigned to meet the challenges facing citrus growers in California. The objective of the program is to be reactive to immediate threats and planning for future threats to the economic production of citrus. The Board will focus the research program on projects that will provide a deliverable solution to issues of economic importance. This may mean fewer projects with a more focused*

approach to applied solutions. To meet these challenges the Board has chosen three areas of concentration: **Security, Reactive Issues, and Production.**

### **Security:**

**Plant Security:** This is the portion of the program that deals with the security of plant material introduced to California from outside the state. Currently the Citrus Clonal Protection Program serves this role. With the potential introduction of new diseases such as Huanglongbing (HLB), Citrus Leprosis, and Citrus Variegated Chlorosis (CVC), the program is critical to assure a safe supply of budwood to the citrus nursery industry. Incorporated in this section will be the need for development of new diagnostic tools and systems to increase the capacity of field testing of plant pathogens.

#### **Additional Specific Items of Interest:**

- Security of Citrus Germplasm: new methods of preserving germplasm for future plant regeneration.

**Market Security:** Market security is defined as having open and free access to all markets. Crop protection tools must comply with all international Maximum Residue Levels, and non-tariff trade barriers must be held to a minimum. When barriers are enacted the program will respond with scientific information to address the concerns of the trading partners. Currently the California Citrus Quality Council (CCQC) operates under a Memorandum of Understanding with the Citrus Research Program to conduct many of the activities under this section but the research program will also continue to provide data to the issues as well. Future research projects will be conducted to assure adequate data to support the industry positions dealing with such activities.

**Invasive Pests:** Invasive pests have been an increasing sector of the Program's activities and will continue to be a major focus. The principles of the program will be Exclusion, Early Detection, Rapid Response, and Eradication. Research programs aimed at early detection and rapid response of insects and diseases will be the main priority for this sector. Currently, several invasive pests top the priority list. They are the Asian Citrus Psyllid and Huanglongbing complex, Citrus Variegated Chlorosis, Tephritid Fruit Flies, Light Brown Apple Moth, and Brown Citrus Aphid. This list will continue to be updated as other insects and diseases are tracked around the world.

#### **Additional Specific Items of Interest:**

- Citrus leprosis
- Hard scales not known to occur in California
- Foreign exploration/adaptation of bio-control agents for high priority citrus pests

### **Reactive Issues:**

**Regulatory Support:** The Program will seek to provide data to support regulatory systems such as exclusion of certain insects and plant diseases, need for air quality regulations, impact of air quality on production of citrus, water quality regulations that are based on sound science, food safety and GAP regulations, and any other issues that may arise from the regulatory community.

**New Emerging Issues:** The Program will support activities that will provide long range predictions of new issues that will require scientific data to support action programs. Examples are Food Foresight participation that looks at new and emerging issues in the food industry that will impact how commodities structure their products for market access. This will help in predicting what varieties consumers are looking for and will help guide the New Variety Development program to meet the demands.

### **Production:**

**Pest Management:** *Pest management continues to be a major focus for the Program. Biological control programs, Integrated Pest Management (IPM) systems, pesticide resistance, and pesticide efficacy will remain a component of the program. Disease management will also be a component of the program. The pest management committee has developed a list of target insects and will work with the research community to conduct programs to meet the needs of the industry. Disease management components will look at the impact on crop production and tree health.*

#### **Additional Specific Items of Interest:**

- *Pre-harvest treatment of Asian citrus psyllid for movement from quarantine to non-quarantine areas*
- *Improved detection tools for diseases and vectors*
- *Response programs for diseases and vectors*

**New Variety Development:** *New Variety Development will be aimed at delivering new varieties to the industry to keep pace with the changing markets. Focus will be on selections that will produce well in California climates and provide a product that meets market demands. Additional efforts will be given to rootstocks that will support the varieties and perform in the various soil conditions of the production areas. Support will also be given to programs that will provide disease resistance to the industry and will interface with the various disease management systems. The program will coordinate all new variety trials and assure that data programs are consistent and verifiable.*

**Production Efficiency:** *This sector will focus mainly on the reduction of dependency on hand labor for citrus production. The use of robotic systems for harvesting and crop management will continue to be a major focus of this sector with the goal of reducing hand labor in many areas of production. Additional projects may be sought in canopy management, irrigation technology and efficiency, and plant physiology/plant growth regulators.*

## **2. Call for New Proposals**

**Pre-proposal concept letters** for new research projects to advance the California citrus industry are now being accepted.

### **Deadlines and schedule of events:**

Pre-proposal letters MUST be received by the close of business on **Tuesday, July 14<sup>th</sup>** to allow adequate time for review. This deadline is final.

Successful candidates with concepts that are moved ahead to the full proposal stage of the process will be requested to submit a complete written Research Project Plan/Grant Proposal. The due date for the full Proposal is **Friday, August 7<sup>th</sup>** by electronic submission. This deadline is final. The signed paper original must be received by Friday, August 14<sup>th</sup>.

Principal investigators will give presentations on their new project proposals to the CRB Research Priority/Screening Committee on **August 20<sup>th</sup> and 21<sup>st</sup>** on the campus of the University of California, Riverside. Proposals that are then sent on to the next stage in the process will be presented at the CRB Research Meeting, **September 16<sup>th</sup> and 17<sup>th</sup>** in Bakersfield. Be sure to reserve both the August and September dates on your calendar.

### **Submission Instructions:**

Pre-proposal letters must be submitted electronically, and all submissions must be prepared according to the specified format. For each new project, please submit the pre-proposal letter as a separate email attachment in Microsoft Word directly to:

Citrus Research Board at [info@citrusresearch.org](mailto:info@citrusresearch.org) *and also to*  
Maria Aldana at the University of California/Riverside at [Maria.Aldana@ucr.edu](mailto:Maria.Aldana@ucr.edu)

It is not necessary to submit a paper copy of the pre-proposal letter.

Concept letters may not exceed 3 pages, and they must include the following:

1. Project leader contact information at the top of the first page.
  2. Brief description of the project and benefits to the industry
  3. Goals and objectives
  4. Plans and procedures
  5. Basic budget estimates (personnel, supplies and equipment, travel, other, and total)
  6. Literature search – (Include notes confirming that you have conducted a literature search on this subject and indicate which of the references you have actually reviewed.
- If your concept is moved forward to the full proposal stage, you may be required to submit a 200-word summary of what the literature shows to be current knowledge on the subject.

Before submitting a concept, review section 6 to be aware of the expectations of CRB-funded project leaders and also review section 4 to be familiar with the guidelines for full proposals.

### 3. Call for Continuing Proposals and Progress Reports

#### Deadlines:

**Research Grant Proposals** for **continuing** projects MUST be received by the close of business on **Friday, July 31<sup>st</sup>**. This deadline is final.

In addition, all researchers with projects funded in 2009 (funding period November 1, 2008 – October 31 2009) are **REQUIRED** to submit a **Progress Report** on each project by **July 31<sup>st</sup>**. This deadline is final. Be aware that incomplete or poorly written Progress Reports could result in discontinuation of funding. As you would expect, these statements of progress are relied on extensively by the CRB Research Committees and Board in their decision-making process.

#### Submission Instructions:

Proposals and Progress Reports must be submitted **electronically** as well as by **paper copy**, and all submissions must be prepared according to the specified format.

For each project, submit the required Project Plan/Research Grant Proposal form and Progress Report form as separate email attachments in Microsoft Word directly to:

Citrus Research Board at [info@citrusresearch.org](mailto:info@citrusresearch.org) *and also to*  
Maria Aldana at the University of California/Riverside at [Maria.Aldana@ucr.edu](mailto:Maria.Aldana@ucr.edu)

In addition, for each project, submit one original signed paper copy of the Project Plan/Research Grant Proposal form and one original signed Progress Report by regular mail to **each** address below:

Citrus Research Board, P.O. Box 230, Visalia, CA 93279 (for express delivery, use  
323 W. Oak, Visalia, CA 93291) *and also to*  
Maria Aldana, College Building North, University of California, Riverside CA 92521

As stated above, the required electronic submissions are due on or before July 31<sup>st</sup> for continuing proposals. The deadline for receiving the signed paper originals is Friday, August 7<sup>th</sup>. This extra time for the paper copy is allowed in order to obtain all required signatures.

You will automatically receive the required forms via email from CRB. Be sure to use the forms developed specifically for the 2009-2010 cycle. If you simply copy a submission from a prior year, you will not be providing the needed information, and your submission will not be accepted. Pay careful attention to the fiscal year headings in the budget section.

**Re all multiyear proposals:** Regardless of the anticipated duration of the project, project leaders must re-apply each year with a new Research Grant Proposal on the appropriate form.

#### 4. Guidelines for Research Grant Proposals

Researchers may submit short-term, medium-term, or long-term proposals. In every case, the grant proposal must clearly state the anticipated duration of the project and must identify short-term, medium-term, and long-term findings/outcomes (deliverables).

The proposal form includes a section titled “Abstract.” Under this heading, please provide a *clear and concise executive summary of the project in layman’s language, not to exceed 500 words.*

The top section of the form includes a line for listing “Cooperating Personnel.” Identify individuals who will play a major role in this research, i.e. research collaborators. For each individual identified as “Cooperating Personnel” you must provide a letter from that person certifying that he or she has read the proposal, has been adequately briefed about the proposal, and is willing to undertake the work. These letters must accompany the proposal when submitted.

Every Grant Proposal must include the following *contact information for each principal investigator*: Location (physical address including Department), mailing address if different from physical location, telephone number, fax number, email address. (If a project has more than one PI, please show the information according to the sample provided.)

In the body of the form, under the heading “Research Collaboration,” discuss your plans for utilizing the “Cooperating Personnel” you have listed at the top section along with any others (additional colleagues, associates and contacts) who will provide input on your proposed research. (Examples: University campus-based colleagues, University extension farm advisors and specialists, growers, other California citrus industry contacts, any non-California citrus contacts, other commodity groups, pest control advisors and/or operators, crop managers, government agency personnel (USDA, CDFR, EPA, etc.)

If your proposal is for basic research, under “Project’s Benefit to the Industry,” include a statement describing the steps that will be needed and the timeframe involved to bring the findings of this research to practical application (i.e., when will these research results be available for use by growers and/or others in the industry).

Under the heading “Technology Transfer,” please discuss your plans for reporting research progress/results to the industry (in addition to CRB meetings). Include anticipated timelines and methods to be used (i.e. scientific publications, ag industry publications, university publications, meeting summaries, grower meetings and seminars, scientific meetings). Be as specific as possible.

Under the heading “Other Funding Sources,” identify the sources and amounts of all current and pending non-CRB sources of support for this project. Include in-kind contributions, and indicate whether other support funds are confirmed or pending.

You will notice that the Grant Proposal form allows for investigators to include budget requests for up to three years. (The Board has occasionally – though rarely – given conditional pre-approved of a project for more than one year; however, any such conditional pre-approvals would be contingent upon satisfactory progress and availability of funds each year for the California Citrus Research Program marketing order. If a project is conditionally pre-approved for a two- or three-year period, the principal

investigator is still required to submit an annual Grant Proposal and an annual Progress Report; however the PI may not be required to discuss the project in person at the CRB research meeting in September. Be advised that no projects have been pre-approved for 2010.)

## 5. Guidelines for Progress Reports

*A Progress Report **MUST** be submitted on each project funded in 2009.*

Restate the project objectives and timetable as discussed in the original funded proposal, and note and justify any revisions in objectives and/or timetable.

The report should document progress during the funding period November 1, 2008 through October 31, 2009. For each objective: summarize the activities that were undertaken to accomplish this objective. Include comments on collaboration. If planned activities or procedures were modified during 2008-2009, please discuss. Report specific interim progress – accomplishments and findings during 2008-2009. Include data summaries and graphs as appropriate. Whenever possible, relate accomplishments to practical application in the industry. Include data summaries and graphs as appropriate. Wherever possible, relate accomplishments to practical application in the industry. Include comments on technology transfer.

Condense the text of the Progress Report to no more than 2 pages, 12 pt. type. Stick to the form as strictly as possible. This includes leaving the horizontal lines which separate the sections. Printed page size must be standard 8-1/2 x 11 inches. Use the Times New Roman font in 11 point or 12 point.

All Progress Reports and all Grant Proposals for continuing projects must refer to the CRB-assigned project number in the space labeled Project No. (Example: 5500-029).

## 6. Expectations of Funded Project Leaders

It is expected that every funded Principal Investigator will:

- Participate in the September CRB meeting, to be held in 2009 in Bakersfield, to report progress on continuing projects and present and discuss research plans for the coming season.
- Participate in the March meetings of the CRB Research Committees to discuss each project in-depth and review the progress. These sessions are normally held mid-month, usually in Riverside.
- Submit a written Progress Report as part of the RFP process each year (see Guidelines for Progress Reports) for use by the CRB Research Committees and the Board in reviewing the status of all projects.
- Submit a publishable 500-word Layman's Language report each year for the CRB Annual Report, and at the conclusion of the project submit a lengthier publishable "summary report" for the Annual Report.
- Submit a publishable Technical summary report of any length at year-end and a publishable Technical final report of any length at the conclusion of the project.

## 7. September Presentations

Proposals for both ongoing research and new proposals selected by the Priority Committee will be presented at the Citrus Research Board meeting **September 16-17, 2009** in Bakersfield. Reserve those dates.