

March 2011

**Spring Request for New Research Proposals for the 2012 Production Season
Deadline: May 3, 2011**

The California Strawberry Commission invites qualified researchers from public and private research organizations to request funding for projects that will directly benefit the California strawberry industry. Applied and basic research projects that clearly benefit the California strawberry industry will be considered. For the 2012-2013 time period, the California Strawberry Commission approved more than \$1 million for research and extension projects.

Proposals are divided into three categories for review by the Commission: **New**, **Continuing** and **Extension/General Support**. Proposals are considered **New** if they represent research that is not currently funded by the Commission or projects that have reached the end of their current funding cycle (normally three years) and are no longer eligible for funding as Continuing projects. Proposals are considered to be **Continuing** if they are currently in their first or second year of funding by the Commission and are seeking funds to continue the project. Proposals are considered **Extension / General Support** if their main objectives are to produce and extend general production management information to the strawberry industry. Pesticide efficacy studies will only be considered in the extension / general support category.

For this request for proposals (RFP), **only new research proposals will be considered**. Continuing and extension/service proposals will be considered during the second RFP period in the fall of 2011. The Commission is continuing the **Farming without Fumigants Initiative** to facilitate the funding of research strawberry production systems not dependent upon the use of current registered fumigants.

Applicants are encouraged to submit proposals that will deliver direct value to strawberry growers. Preference will be given to research that directly addresses the listed research priorities and the research should focus on lowering production costs for growers. In addition to the Commission's ongoing priorities in pest and disease control and pomology, the research priorities for the 2012-2013 production season include:

- 1) **Farming without fumigants.** The development of alternative strawberry fruit production systems not dependent upon the use of preplant soil fumigants for both conventional and organic production. Proposals in this area should focus on non-fumigant based approaches. These approaches can fall into two primary categories: a) Substrate or media based production systems, and b) the use of amendments or other non-fumigant based soil "treatments" to manage soil borne diseases. Proposals utilizing a team approach combining researchers with different expertise are encouraged.
- 2) **Identification and control of emerging and invasive pests and diseases.** The etiology, biology and control of emerging diseases and emerging or invasive pest issues in strawberry fruit production. Special consideration will be given to the development of effective control strategies for Lygus, *Macrophomina phaseolina* (charcoal rot), *Fusarium oxysporum* (Fusarium wilt), thrips, light brown apple moth (LBAM), spotted wing drosophila and other pests or pathogens where regulatory changes have or may lead to increased management problems.

- 3) **Development of new production systems or approaches that address emerging labor and regulatory limitations.** Research into the development of new components/methods (including those with increased capital expenses) for strawberry production that will reduce labor costs and/or address emerging issues that may cause significant changes in current production methods. Examples of these types of projects include harvesting machines/aids, decapping tools/machines for processed fruit, toilet/sink design to improve harvest worker food safety practices, etc. Projects that explore or adapt methods or approaches from other crops or production regions will also be considered.
- 4) **Water conservation and maintenance of water quality.** Emerging regulatory restrictions are creating a serious need for information relating to water conservation and the use and management of nitrogen and other nutrients in the environment. Proposals to develop/improve best management practices for improving water quality will be given priority.
- 5) **The development of methyl bromide alternatives for strawberry nursery production.** The use of methyl bromide in strawberry nurseries may be restricted in the near future. There is a need to develop and evaluate the use of alternative fumigants as replacements for methyl bromide.

The Commission will also consider proposals focused on the development of improved control methods for the major pests and pathogens of strawberry in California. The pests and diseases of major concern in California fruit production fields include: two-spotted mite, lygus bug, whitefly, thrips, worms, charcoal rot, Botrytis fruit rot, powdery mildew, anthracnose, Phytophthora crown rot, Verticillium crown rot, angular leaf spot, charcoal rot, Fusarium wilt, virus, phytoplasma and weeds. Research proposals for the control of pests or pathogens should include goals to reduce grower costs through the improvement of current pest management programs (i.e. epidemiology, etiology and pesticide scheduling/rate programs). Control based projects (i.e. pesticide screening trials) without clearly defined research objectives should be submitted as extension/general support proposals during the fall RFP period.

The Commission will accept proposals for up to three years of research. However, proposals are funded on an annual basis and must be resubmitted each year for review and approval. New proposals will be reviewed by a scientific advisory panel organized by the Commission. Awarding of funding for proposals will be made after evaluation and review by the Research Committee and approval by the California Strawberry Commission's Board of Directors. Funded proposals will be posted on the Commission's website. Any questions about the appropriateness of proposed research should be directed to Dan Legard (dlegard@calstrawberry.org / ph 831-724-1301).

Proposals are limited to six pages with standard margins plus a title page, budget page, an activities report (if you have received funding from the Commission during the 2007-2010 period, example on page 5) and a short Curriculum vitae. Proposals **must** be submitted in 12 pt Times New Roman font, with standard margins (1" sides, 1/2" top and bottom), and with all pages numbered except the title page. The title page shall include the project title, funding amount requested and anticipated duration of project, principal investigator, organization, co-PI / affiliations and contact information. All reports must be submitted via e-mail by **May 3, 2011**, to Sofia Hernandez (shernandez@calstrawberry.org / ph 831-724-1301) at the California Strawberry Commission in **PDF** or **MS Word format (PC)**. Please write "Spring 2011 RFP" and your name in the subject line of the e-mail. Any proposals that do not follow these guidelines shall be returned for correction.

Cover sheet: On a separate sheet, please list: project title, funds requested, anticipated duration of project: (1, 2 or 3 years), principal investor (s), organization, Co-PI (s) and affiliation (s), cooperator (s), contact information for PI (email, phone, address). All proposals must follow the format in the Proposal Cover Sheet example (see page 6).

Summary: Provide a summary (400 words or less) of the proposed research, general methods, and anticipated results.

Justification: Describe the subject to be investigated, the need for the proposed research and the benefits to the California strawberry industry (one page maximum).

Objectives: Describe the specific goals of the proposed project. Indicate how this research will meet the priorities identified in this RFP.

Methods: Describe the procedures and methodology to be used, the kinds and timing of expected results, and potential problems or limitations that may be encountered.

Proposed schedule of accomplishments: List the projected accomplishments for the project for each year you anticipate funding will be requested for.

Literature review: Include a limited review of literature with citations relevant to the proposal (no more than 10 references).

Budget Page: Breakdown costs into salary, benefits, equipment, supplies, travel and miscellaneous. Budgets **must** be formatted using the form in example budget (see page 7). For proposals with more than one PI, separate columns/pages should be used clearly to show how the funds will be distributed among researchers. For multiyear proposals, please provide estimated budgets for each each year of the proposal (but only provide a detailed budget for the first year). Use foot notes to provide details. Researchers must include all costs that will be charged to or provided by the Commission. ***The Commission does not allow indirect or overhead costs to be charged against grants we award to researchers.*** The Commission encourages proposals that involve cost sharing with other granting agencies or third parties. All sources of matching funds should be listed including both requested and anticipated funds. Proposals with projects to be conducted at the Monterey Bay Academy (MBA) research location **must** include estimates of their production costs (i.e. plants, fumigation, harvesting, spraying, etc.) at MBA in their budgets. Please contact the Commission at 831-724-1301 for help estimating MBA costs. **Only submit budget sheets for the first year of the project.** Also show the estimated budgets for additional years but do not submitted additional budget sheets for these years.

Curriculum vitae: A brief vitae (no more than three pages) for each principal investigator with employment and educational history along with relevant research and extension publications. If you have received funding from the Commission for extension or research activities in the past three years, you must complete the attached research/extension activities report (see page 5).

Signatures: The Principal investigator must confirm that all Co-PI's approved the content of the proposal and obtain their signature and required approvals from their University/agency. Please mail a copy of the signature sheet to Sofia Hernandez at the California Strawberry Commission. (California Strawberry Commission, P.O. Box 269, Watsonville, CA 95077) or fax (831-724-5973).

Reporting of research results: Annual reports of research progress are required at the end of each funding year, or as specified, for all funded proposals. The reports will be distributed to the California strawberry industry through publications and/or the Commission's website. Additional reports and updates in the form of Production Guidelines, newsletter stories, fact sheets, and other informative materials are also requested to enhance communications between researchers and growers. Researchers are strongly encouraged to present the results of their research at field days and research meetings attended by California strawberry growers. Researchers are also encouraged to present their results at scientific meetings and publish them in peer reviewed journals.

Spring RFP Timeline

March 7, 2011	RFP sent out
May 3, 2010	Deadline for submission of proposals
February 2012	Release of funds for approved proposals

Strawberry Research and Extension Activities Report

The California Strawberry Commission is requiring all programs to provide metrics that will document their accomplishments and success. The purpose of the Strawberry Research and Extension Activities Report is to provide a simplified but comprehensive method to providing that information to the Research Committee and Board. Please only include information about publications and presentations relating to strawberry based activities. You may include information about strawberry research and extension projects funded by other organizations. We are particularly interested in funding and grants received from other organizations to for strawberry projects. **Please include information for the past five years (nothing from before 2006).** Please use the following outline as a template for your report and use the same format and margin guidelines as for the proposal. Please try to abbreviate descriptions to minimize the size of the report, and present accomplishments in bulleted or numbered lists.

1. Name of PI
2. Title of Project
3. Funding requested (for current and future years)
4. History of funding by Strawberry Commission
5. Grant and funding support for strawberry research and extension (from other oraganizations)
6. Research publications and presentations
 - a. Referred publications
 - b. Non-referred scientific publications
 - c. Presentations at scientific meetings (include date, location and audience)
 - d. Leadership or participation in the organization of meetings, symposia, working groups or other activities intended to discuss scientific topics relevant to the strawberry industry.
7. Extension publications and presentations
 - a. California Strawberry Commission Annual Research Reports and Production Guidelines
 - b. UCCE and other publications
 - c. Grower meetings and presentations
 - d. Farm visits, diagnostic services, direct contacts with members of the California strawberry industry
 - e. Leadership or participation in the organization of meetings, working groups or other activities intended to extend information to the strawberry industry.
8. Other

Research Proposal for the California Strawberry Commission

Type of Proposal: New

Project Title: Development of a novel method for estimating strawberry yields using chaos theory

Funding Requested: \$31,000

Anticipated duration of project: 2 years (3 year maximum)

Principal Investor (s): Dr. Carl Sungrin

Organization: University of Santa Maria

Co-PI (s) and affiliation (s): Mr. Olmark Boldavich, UCCE, Santa Maria, CA

Cooperator (s): Hiem Knothear of Secret Fruit Farms, Santa Maria, CA

Contact information for PI (email, phone, address): Csungrin@usm.edu , 888-123-7654, 138 Berry Lane, Nipomo, CA 11112

Budget Page

Title of proposal and PI	Amount
Categories	Amount
Personnel	
Postdoctoral (1/3 time)*	
Salary	\$17,500
Benefits (35%)	\$3,063
Lab Technician (full time)	
Salary	\$32,000
Benefits (35%)	\$11,200
Field Worker (6 weeks full time)	
Wages (\$10 / hr)	\$2,400
Benefits (28%)	\$672
Personnel subtotal	\$66,835
Equipment	
Fruit color analyzer	\$4,500
Lab Scale	\$500
Automatic plate colony counter	\$2,700
Misc	\$900
Supplies	
Fertilizer	\$1,500
Lab disposables (petri dishes, etc)	\$0
Travel**	
Travel to field research plots	\$6,000
Travel to research team meetings	\$1,200
Travel to growers meetings	\$1,500
On farm expenses (except for MBA)	
Harvest costs - Oxnard site	\$5,000
Harvest costs - Santa Maria site	\$5,000
Monterey Bay Academy (MBA) Expenses***	\$3,200
Materials and travel subtotal	\$28,800
Matching funds****	
Fresh Fruit Research Institute	\$5,000
USDA grant	\$20,000
Three Brothers Inc	\$5,000
Matching fund support	(\$30,000)
Total funds requested from Commission	\$68,835

* Include detail in footnotes about role of all personnel funds are being requested for

** Provide detail in footnotes about number of trips and number of personnel travelling

*** Contact Ian Greene at the Commission for assistance calculating this cost estimate

**** Include all additional support requested and/or obtained from other funding sources in this category. In kind donations should be listed as a statement in the footnotes.