



Production Research Program

2008 Request for Research Proposals For Funding November 1, 2008 – October 31, 2009

Instructions for all new or previously unfunded research proposals begin at:

PART A. NEW RESEARCH PROJECT SUGGESTIONS Page 2

Instructions for ongoing research as well as approved (invited) new proposals:

PART B. REQUEST FOR FULL RESEARCH PROPOSALS Page 5

TIMETABLE OF KEY DATES:

Suggestions for New Research Projects Due:	May 9, 2008
Notice of Invitation to Submit Full Proposal - New Research:	May 23, 2008
Full Proposals - New Research (by invitation only) Due:	June 20, 2008
Ongoing Project Proposals Due:	June 20, 2008
Oral Presentations of Research Proposals (by invitation):	July 30, 2008
Tentative Award Notification:	October 23, 2008
Funding Finalized / Project Start Date:	Nov 1, 2008
Fiscal Year Funding End Date:	October 31, 2009

PART A. NEW RESEARCH PROJECT SUGGESTIONS

Starting this year, the California Avocado Commission (CAC) is accepting new research project suggestions (pre-proposals for new research projects), with the goal to provide growers and industry with practical, cost-effective ways to improve production efficiencies while minimizing environmental impacts. Project ideas may build on those production practices that inherently provide industry advantage, or identify new production practices that have potential to improve industry sustainability while increasing the competitive advantage of California avocado growers.

Suggestions may focus on the key research goals listed below, however original or novel suggestions that have potential to increase grower profits are also encouraged.

Typically, the project proposals that are recommended for Commission funding by Production Research Committee meet the criteria above, and range from \$10,000 to \$60,000 (U.S.) for each year of funding.

KEY RESEARCH AREA GOALS:

The following potential research areas are identified as being of special interest to the industry for FY 2008-09. These are not listed in order of priority nor should they be interpreted as exclusive for funding consideration. All proposals received within the timetable listed are subject to full and appropriate review and consideration:

1. General biology and control of avocado pests and diseases.
2. The identification of effective biological and chemical control tools and agents, including the collection and evaluation of potential natural enemies for use in an integrated pest management programs.
3. The identification, evaluation, timing and application methods of chemical pest control materials that improve efficiencies, reduce costs, and have potential to provide value for resistance management.
4. Identification of safe and effective pest control methods and materials that have minimal impact on non-target organisms or environmental quality.
5. Fertilization of avocado trees, including optimal formulations, timing, application techniques, rates, and efficacy.
6. Tree nutrition considerations that address the range of industry soil types and grove locations.
7. The effect of fertilizers on production and fruit quality.
8. Irrigation and salinity management in avocado, including water management strategies designed for optimal yield with special emphasis on the contribution of one or several of the following factors: 1) rootstocks; 2) soil types; 3) water quality; 4) environmental conditions.
9. Development/refinement of best management thresholds for irrigation requirements, leaching fractions and crop coefficients, under a range of saline conditions representative of a range of conditions in the industry.
10. Addressing challenges and finding solutions to environmental challenges presented by application and accumulation of salts through applied irrigation water.

11. Canopy management, tree density and tree architecture. Innovative techniques, in pruning, light management, tree modeling, or other consideration that may improve efficiencies, increase production, reduce harvesting costs and increase yields.
12. The role of endogenous and exogenous growth regulators in avocado and the evaluation of commercial growth regulators on vegetative growth, flowering, fruit set, fruit size, and fruit yield.
13. Development of tolerant rootstocks and/or treatments and materials to combat avocado root rot (*Phytophthora cinnamomi*) and collar rot (*P. citricola*).
14. Rootstock selection methods and materials that may improve productivity, salinity tolerance, or tree height and architecture.
15. Improving pollination of the avocado. Methods to improve pollination using honeybees or alternative pollination agents. Identifying pollen varieties that demonstrate improved fruit set and yield of Hass.
16. Development of new avocado varieties. Plant breeding, selection and evaluation of potential new cultivars that are identified by California growers, as well as nurserymen and industry personnel across the avocado regions of the world. Selections for productivity, fruit quality, adaptation to California conditions, disease and pest tolerance, tree growth habit, market acceptance, and optimal maturity timing for market positioning.
17. The use of modern genetic tools/methods to increase efficiencies in selection of progeny in traditional breeding program.
18. Innovative practices to increase efficiencies of grove operations, worker safety, food security and safety, and orchard profits.
19. Identification of those practices that have the least impact on the local environment, or provide measurable environmental benefit to Californians. These may include but not limited to; water management, air quality, wildlife habitat and refuge, wildfire mitigation or other environment related issues.
20. Improving the quality of avocado fruit at retail and the identification of points in the handling and distribution chain where a loss of quality and profits may be occurring.
21. Identify pre-harvest growing conditions and factors in post-harvest handling that may affect fruit quality.
22. Define those fruit quality criteria or consumer perceptions of quality that may provide competitive advantage to California growers. Benchmark fruit quality against local harvest season timing, harvest conditions, imported fruit quality in the market in the same season, and/or environmental impacts of industry production practices, carbon and or pesticide footprints.

Applicants should note that these areas of interest are not exhaustive. Proposals addressing other areas of industry concern will also be given careful review and consideration for funding.

WHO MAY APPLY:

Any individual or group may submit a project suggestion. It is expected that researchers from outside California pre-arrange an agreement with a local/regional cooperator(s) in California to provide local support for their research. If needed, Commission staff may assist in identifying cooperators, setting up field trials and providing other research related support.

HOW TO APPLY:

Project suggestions may not exceed two pages. Please include the following information:

- Descriptive project title, project location, duration, and research leader(s) information (name, title, affiliation, e-mail address, mailing address and telephone number.
- A simple and concise summary of the problem to be addressed. Indicate to which, if any of the above listed industry areas of special emphasis it relates.
- Objectives of the proposed project and a description of the general approach to be used.

(Note: At this time, budget specifics are not required)

Incomplete, late, or project suggestions exceeding two pages will be returned and eliminated from consideration. While e-mailed projects suggestions are preferred, mailed copies are acceptable.

SEND PROJECT SUGGESTIONS:

Electronically (preferred) to: bbohrk@avocado.org as an e-mail attachment in Adobe Acrobat (pdf), MSWord, Google Docs, or similar format.

Mailed copies to: Attn: Betty Bohrk, California Avocado Commission, 38 Discovery, Suite 150, Irvine, California 92618-3105

SELECTION AND NOTIFICATION PROCESS:

Applications for new research must first submit proposal suggestions of no more than two pages to the CAC by May 9, 2008. The CAC Production Research Committee (PRC), which consists of growers, representatives of institutions of higher education, and representatives of the avocado industry, will review submitted new research suggestions. The Committee will determine which suggested projects meet key industry goals based on project concept, impact, methodology, and feasibility; also, which are most likely to provide reliable results for the industry to use with high confidence. The PRC will invite full research proposals from those selected (authors of successful candidate projects will be notified by May 23, 2008; full proposals are due June 20, 2008).

The following guidelines provide details required for those invited to submit a full proposal of new research, or for those who have ongoing CAC funded projects (Request for *Full Proposals* (RFP) below).

PART B. REQUEST FOR FULL RESEARCH PROPOSALS

This request for full research proposals is to be used for all currently funded, ongoing research projects (for proposed continuation), and by those invited to submit full proposals of new research (selected by the Production Research Committee). There are three elements to the full request:

- A statement of industry research objectives, expectations and mission.
- Format to be used in developing a research description, budget and reports.
- Timetable for submission, review and funding notification of submitted proposals.

Please note it is important that applicants for funding familiarize themselves with the following basic expectations, and construct research proposals accordingly.

Applications will be considered complete and will be submitted to the Production Research Committee for funding consideration when the following conditions are met:

- Applications reflect a clear recognition and acceptance of industry objectives, expectations and mission outlined below.
- Proposed research has a clear relationship to one or more of the listed research priorities (see “KEY RESEARCH AREA GOALS” listed in Part A, page 2-3); or addresses other areas identified as being of concern or interest to the Industry.
- Proposed research is applicable to California growing conditions.
- The project plan submitted is complete.

All proposals will be considered, but preference will be given those proposals that:

- Show the greatest promise of producing results applicable in the field by growers, or a benefit to the retail market and consumers, while using research funds and time efficiently.
- Demonstrate knowledge and consideration of subject matter from other domestic and international research covered by the proposal and indicate potential for integration with related research programs.

INDUSTRY MISSION, OBJECTIVES AND EXPECTATIONS

The **Mission** of the California avocado industry in funding research is “to provide California avocado growers a means to achieve optimum profitability, now and in the future, through focused research, global collaboration, and effective communication of results.”

The Objectives of the California avocado industry in funding research are:

- To develop and implement research programs that lead to increased grower profitability.
- To ensure that results have a practical, applied orientation.
- To strive for shortened time horizons in producing usable research results.
- To rigorously evaluate all research programs for progress, cost efficiency and quality of results.
- To achieve integration of research efforts among scientists, scientific disciplines and commodity programs (citrus/others)
- Between the California Avocado Commission (CAC) and international programs
- Among public and private research institutions.
- To foster international cooperation and an exchange of information.
- To identify and solicit responses from all available resources during the RFP process, with the objective of ensuring an open, competitive research environment.
- To disseminate research progress and results to all growers as appropriate.

Expectations

It is expected that research leaders will provide periodic progress reports and be available for symposia or other presentations to growers and members of the California Avocado Commission Production Research Committee, including, when appropriate, making field presentations. Researchers from outside California must prearrange to have a cooperator in California to provide local support. If needed, CAC staff may be available to help researchers identify, or act as, their local/regional cooperator.

The final research product will include a full written report ***easily understood by laypersons and in U.S. units of measure*** that may indicate:

- Research results, negative and positive.
- Whether growers can use results, and actions required to apply results.
- Estimated, projected cost to growers for application of research results.
- Expected consequences of application, including anticipated dollar return.
- Time frame for realization of results.

**CALIFORNIA AVOCADO COMMISSION
RESEARCH GRANT PROPOSAL AND PROJECT PLAN**

Proposed Budget for Fiscal Year Nov 1, 2008 – Oct 31, 2009: \$ _____

Duration of Project: ____ years New Ongoing (Year ____ of ____)

Project Title: _____

Name of Primary Researcher: _____

E-mail: _____

Research Institution or Company: _____

Address: _____

Telephone: _____

Fax: _____

PLEASE ALSO INCLUDE THE FOLLOWING:

1. Name(s) of Supporting Research Staff (including, if different from preceding year, the address, telephone, fax and e-mail):
2. Current vitae for all research participants. Please provide only *one vitae per researcher per year*, not one per project if you submit *multiple* projects. You do *not* need to include vitae for *ongoing* research.
3. Provide a list of relevant published research. Please do not include a complete published history of your research, just those items relevant to this proposal, including papers published from your ongoing CAC-sponsored work.
4. Provide a review of literature relevant to this research project.
5. Indicate to which, if any, of the listed industry research priorities the proposal relates. (NOTE: Listed industry research priorities are intended as a guideline. Proposals addressing other areas will not be excluded from the review and funding process.)
6. Provide a brief summary of how you believe this project is responsive to the indicated priority, and how it supports industry objectives, expectations and mission.
7. Provide research summary indicating how research will be conducted (design/methodology), hypotheses or research questions to be addressed, and any other information you believe should be taken into account in review of this proposal. Note that research will be rigorously evaluated for progress, cost

efficiency and quality of results. Written progress reports will be required for all research funded (see timetable on pg. 10), and continued funding will be contingent upon satisfactory progress.

8. Provide a brief summary of how work contemplated by this proposal will enhance what is already known about the topic. Indicate here how the proposed project will complement or can be integrated with other research.
9. Provide a statement of objectives and a schedule of expected accomplishments for the funded year.
10. Proposed project budget:

Budget Year 2008-09 (November 1, 2008 – October 31, 2009)

Note: The California Avocado Commission does not allow indirect cost /overhead charges.

Salaries & Benefits:

Primary Researcher/Project Leader: \$ _____
 Postdocs/Research Assistants: \$ _____
 SRAs: \$ _____
 Benefits: \$ _____

Subtotal: \$ _____

Supplies/Expenses:

Equipment: \$ _____
 Operating Expenses: \$ _____
 Travel: \$ _____
 Other: \$ _____

TOTAL: \$ _____

Indicate approximate total support funds for this project expected from other sources (include in-kind contributions or other “soft money”); indicate source of all funds, in-kind or otherwise): Source of funds: _____ Amount: \$ _____

Indicate whether support funds are: Guaranteed Provisional

If provisional, indicate conditions under which funds will be provided/denied:

Is satisfactory execution/completion of this research project contingent upon receiving support funding in addition to CAC funding? Yes No

TENTATIVE TIMETABLE FOR RESEARCH FUNDING CONSIDERATION AND
PROGRAM EXECUTION FOR FISCAL YEAR 2008-09

2008

<u>March 20</u>	Call for FY <u>2008-09 pre-proposals</u> released
<u>April 23</u>	Full RFP released
<u>May 9</u>	<u>Deadline</u> for receipt of FY <u>2008-09 pre-proposals</u>
<u>May 23</u>	Invitations sent for <i>full</i> proposals from PRC-selected pre-proposals
<u>June 20</u>	<u>Deadline</u> for receipt of <i>all</i> FY <u>2008-09 full</u> proposals
<u>July 30</u>	Oral presentations of FY <u>2008-09</u> new and select ongoing research proposals to Production Research Committee (PRC) and UC Research Review Committee at University Extension Building in Riverside, California
<u>August 20</u>	PRC meets to discuss recommended proposals and budget
<u>August 28</u>	Recommended FY <u>2008-09</u> proposals and funding requests are posted online for review by CAC Board of Directors
<u>Sept 18</u>	Recommended research proposals and proposed budget are discussed with CAC Board of Directors
<u>October 16</u>	FY <u>2008-09</u> Production Research programs and budget are approved by CAC Board of Directors
<u>October 23</u>	Researchers with funded research programs for 2008-09 will be notified by letter

2009 GROWER SEMINAR (RESEARCH SYMPOSIUM) SERIES

Feb 10, 11,12	Pest Management
April 7, 8, 9	Cultural Management & Physiology
June 9, 10, 11	Post Harvest
Aug 11, 12, 13	Breeding, Varieties & Genetics

Note: Some dates may change during 2008-09 Board Business planning and should be considered tentative until finalized November 1, 2008.

Oral presentations should include slides formatted in MS PowerPoint or Apple Keynote. CAC Staff will be available on request to assist in preparation of slide presentations of invited researchers. Basic audiovisual needs including laptop, LCD projector and screen will be available, however the PRC has requested no overhead projector presentations please.

Four grower seminars (mini-symposia) have been planned for 2009 with tentative dates and topics provided above as advance notice placeholders. These represent critically important opportunities for researchers to report directly to the grower constituency which fully provides the financial resources of this competitive grants program through assessments of packed fruit.

A poster presentation outlining research plans and highlights of progress will be required at one of the four seminar series for each funded research project and each annual funding cycle. This means researchers should be prepared to present posters once at each venue in northern, central and southern grower district meetings. Posters should be presented at a time judged most appropriate, and should consider both the schedule of topics and anticipated research progress. Please consult with either the appropriate PRC Subcommittee Chair or CAC staff member if you are uncertain which grower seminar may be most suited for presentation of your poster. A representative of the research team who is fully versed in the specific details of the project should accompany posters.

In addition to poster presentations, key research project leaders will be invited to make formal oral presentations to growers attending these seminars. Invitations will be determined once project funding is finalized.

Submit Research Project Proposals to:

Betty Bohrk *via e-mail* (bbohrk@avocado.org) with the document attachment in either *Adobe Acrobat, Apple Pages* or *MSWord* software.

Send a fully-signed, ready-to-execute original hard copy to:

Betty Bohrk
California Avocado Commission
38 Discovery, Suite 150
Irvine, CA 92618-3105

Thank you. We appreciate your interest in the California Avocado Industry.

PREPARATION AND CONSIDERATIONS FOR REQUIRED PROGRESS REPORTS:

IT IS IMPORTANT TO FULLY CONSIDER ALL THE RECOMMENDATIONS AND INSTRUCTIONS FOR REPORTING ON FUNDED PROJECTS – PLEASE READ CAREFULLY.

Both Mid-Year and End-of-Year written Progress Reports are required for each year funding is provided. Deadlines for receipt of progress reports for 2008-09 projects will be provided.

Progress reporting requirements, including document length and format, are exactly the same for both mid and end-of-year progress reports.

At project completion, all researchers are required to prepare a summary of findings in a format suitable for publication in the *California Avocado Society Annual Yearbook*.

The information provided from report to report, both within a funding cycle and between funded years, should be sequential. Growers, the PRC, and the Board should be able to easily track project progress, and this is contingent on the delivery of clear, up-to-date summaries of project activities with new findings highlighted sequentially in successive reports.

Please avoid the use of scientific jargon to describe research, particularly if the same information can be provided in lay terms. Avoid using metric as the primary units of measurement and always include U.S. units. Avoid unnecessary, burdensome, exhaustive, stale, or excessive narrative repetition in sequential reports. The latter may serve to irritate constituents, particularly if they have been exposed to exactly the same information repeatedly in past reports.

Reports should meet or exceed the expectations of the PRC, CAC Board and the grower community at large -- in that the CAC Board should at any time be able to use the most recent deck of reports to easily justify research spending when challenged by constituent growers.

Our academic and other research program partners should be fully aware of their responsibilities to provide any member of the Board, PRC, grower constituency or CAC staff those tools necessary to promote, justify and defend each funded project. In other words any grower, Board Member, or PRC Member, with your latest report in hand, should feel confident that it would serve as a stand-alone promotional tool if needed to support your work.

Among the most important report preparation consideration is to keep the narrative concise and accurate, while also providing those details necessary to demonstrate progress, and in a style that continues to engage and interest research sponsors.

Reports should be suitable for reading by our constituent audience; contain clear evidence of progress toward achievement of approved research goals; and that project time lines, milestones and benchmarks are on course. Any deviance from the approved research track needs to be fully disclosed and explained to the satisfaction of the PRC.

Full editorial responsibility is on project leaders to accurately edit all content before submitting documents. This includes the assumption that unless fully explained that reports contain original, project-specific content. Results should be included in a form that is easily understood by a grower constituency whose expertise generally falls outside of science and research circles.

Reports must be formatted according to the guidelines provided below, spell-checked, proofed, and submitted in a form deemed suitable and final for distribution to the PRC, CAC Board, and publication on the CAC website with associated unrestricted public access.

Written reports, along with oral and poster presentations, are considered the primary avenues to showcase research, and they have great influence on how program performance is perceived by industry and how future funds are allocated. Any reporting to constituents should therefore focus on showing satisfactory progress toward proposed, understood, and agreed-to industry goals.

WHAT GROWERS HAVE TOLD US THEY DEFINITELY **DO NOT** WANT IN REPORTS:

- To be faced the prospect of reading excessive detail in materials and methods, or - documents full of unexplained scientific jargon.
- Being buried in a complicated review of all the research ever done in any area of specialization, or exhaustive lists of all project-relevant research publications to back up the latter. These sorts of detail may be suitable in research proposals documentation, but should be limited in progress reports.

WHAT GROWERS HAVE TOLD US THEY WANT:

- Most are primarily concerned with the details of what you have found so far, provided in growers speak, and that you communicate regularly with them including updates, expected results in the near-term, and ultimately how the research will help them on the farm.
- A basic explanation of why you are pursuing a particular research angle; why your work was judged important enough to secure CAC grower funds (in layperson's terms and in familiar units of measure).
- Will growers, or other sectors of the industry, realize real tangible payoff (industry return on invested grower dollars for this research)?
- That there is a consensus amongst fellow growers that overall project goals are realistic and on-track toward finding clear, useful, economically-beneficial outcomes from their investment in the research. That there is value in the research and it is a good investment of their dollars

- That you are taking advantage of appropriate opportunities presented which may provide you a platform to interact with growers and promote your research project.

Remember, reports will be posted and archived on the Commission Web site so remember there are enhancements that can add significantly to project interest, illustrate methods used, or explain outcomes, including illustrations, charts, photographs, video, PowerPoint slides or audio files

You want to engage growers in your research efforts and generate their input and ideas so that there is a sense of shared ownership and pride in the effort.

It is recommended that Mid-Year and End-of-Year Summary of Research Progress Reports include (but are not limited to):

Purpose of project

Methods

Results – Discussion

Up-to-date milestones and results

Challenges presented or adjustments needed to improve project, etc.

Expected short and long-term benchmarks

Is project “on track” to achieve expected results?

Progress reports should be submitted to Betty Bohrk (bbohrk@avocado.org) within the provided timetable of reporting deadlines unless a specific exception for this requirement has had prior approval from the PRC Chair. The report should be provided by e-mail attachment as an *Adobe Acrobat, MSWord or Apple Pages* document.

All Mid-Year Reports for FY 2008/09 will be due no later than: May 1, 2009

All End-of-Year Reports for FY 2008/09 will be due no later than: October 1, 2009

SPECIFIC FORMATTING REQUIREMENTS FOR BOTH MID-YEAR AND END-OF-YEAR PROGRESS REPORTS ARE PROVIDED IN THE EXAMPLE ON NEXT PAGE:

Neohydatothrips burungae
Phenology and Survey (HN,14, bold)

Mark Hoddle (HN, 12, italic)
UC Riverside (HN, 12, italic)

Cooperators: Tom Roberts - Integrated Consulting Entomology, David Machlitt - Consulting Entomology Services, Rick Shade - Shade Farm Management, Frank Alegria - Calavo, Nile Peterson - Calavo, Scott Scarbrough - Mission Produce, and Gary Bender - UCCE (HN, 11, italic)

(Leave 3 lines at font size 11, single spacing)

In December 2004, *Neohydatothrips burungae* was identified among specimens collected from avocado trees in San Diego County California during an avocado lace bug survey. In Mexico and Guatemala this thrips was found to be as common as avocado thrips, *Scirtothrips perseae*, in areas of intermediate altitude. In colder high altitude areas *S. perseae* dominated, almost exclusively, and in warmer more humid lowland areas *N. burungae* was dominant on avocados. (HN 11, normal, justify)

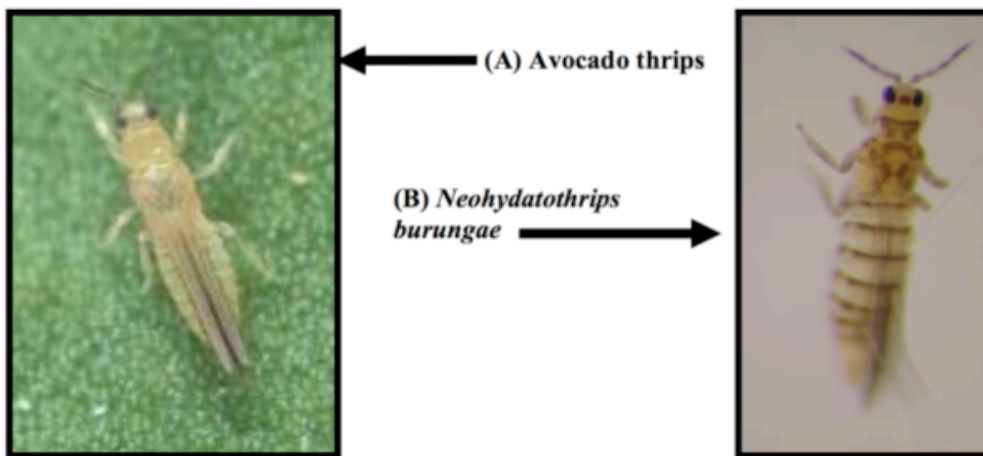


Figure 1. (A) Avocado thrips, *Scirtothrips perseae*, and (B) *Neohydatothrips burungae* are very similar in size, color, and habit. This makes them very difficult to accurately distinguish apart in the field when examining avocado leaves with a hand lens. (HN 10, normal, justify)

When this work was conducted it unknown how widespread *N. burungae* was on California grown avocados or how common this thrips is in comparison to the widespread and pestiferous *S. perseae*. Consequently, a survey through all major avocado growing areas in California was undertaken to survey for *N. burungae* to determine its distribution and abundance. To manage foliage and fruit damaging thrips it is imperative to determine how widespread and abundant *N. burungae* is in comparison to *S. perseae*. (HN 11, normal, justify)

In sites surveyed in San Diego County in August 2005 41% had *N. burungae* but just 6% (58) of

collected thrips (4932 *S. perseae* were collected) were *N. burungae*. In 2005, just one site (10%) in Riverside County (UC Ag. Ops) had *N. burungae* and had 4 females. In 2005, 3979 thrips were collected from Ventura, Santa Barbara, and San Luis Obispo County avocado orchards and 0 (zero) *N. burungae* were found. (HN 11, normal, justify)

Survey results in February, March, and May 2006 differed little from results of the August 2005 survey. Low numbers of *N. burungae* were found in San Diego County, none in Riverside County (four females had been found the previous August). This resulted in *N. burungae* comprising 0.7% of total thrips collected from San Diego and Riverside Counties. A single female was found in Ventura County in February 2006 and no *N. burungae* were found in Santa Barbara or San Luis Obispo Counties. This single find of one female *N. burungae* in Ventura County accounted for 0.08% of total thrips collected from avocados north of Los Angeles. (HN 11, normal, justify)

Due to the very low numbers of *N. burungae* encountered at survey sites so far, there have been no substantial populations to follow for phenology studies, or to initiate laboratory colonies for insecticide evaluations. (HN 11, normal, justify)

As of April 2007 *N. burungae* has been found attacking lemons in Ventura County. Surveys in all avocado growing areas are currently under way to determine if populations have increased on avocados as well, or if this population outbreak is unique to lemon orchards. (HN 11, normal, justify)

SELECTED REFERENCES: (HN 11, normal capitalized)

- Hoddle, M.S. and Morse, J.G. (1997). Avocado thrips: a serious new pest of avocados in California. California Avocado Society Yearbook 81: 81-90. (HN 10, normal, left justify)
- Hoddle, M.S., Morse, J.G., Phillips, P., Faber, B., Yee, W., and Peirce, S. (1999). Avocado thrips update. Citrograph 84: 13-14.
- Hoddle, M.S., Robinson, L., Drescher, K. and Jones, J. (2000). Developmental and reproductive biology of a predatory Franklinothrips n. sp. (Thysanoptera: Aeolothripidae). Biological Control 18: 27-38.
- Lewis T. (1973). Thrips: their biology, ecology, and economic importance. Academic Press, London. 349 pp.
- Parker, B.L., Skinner, M. & Lewis, T. (Eds) (1995). Thrips biology and management. Plenum Press, New York. 636 pp.
- Phillips P. (1997). Managing greenhouse thrips in coastal avocados. Subtropical Fruit News 5: 1-3.
- UC IPM Thrips Web Page. <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn030.html> (load the following keywords into a search engine: UC IPM Thrips Pestnotes).