

Summary of the IPM Regional Workshop

How to Develop and Use an “Approved Pesticide List”

Foothill Park Conference Center, Palo Alto, California

June 10, 2004

Prepared for

**San Francisco Department of the Environment
&
City of Palo Alto**

Prepared By

Sheila Daar

Daar/IPM Consulting Group

211 Sutter Street, Suite 605

San Francisco, CA 94108

415/265-1292;415/951-9320

<mailto:daargroup@netscape.net>

Yeggie Dearborn

Envirosurvey, Inc.

935 Howard Street

San Francisco, CA 94103

415/882-4549

<mailto:yeggie@envirosurvey.net>

Summary of the IPM Regional Workshop

How to Develop and Use an “Approved Pesticide List”

June 10, 2004

**Sponsored by the City of Palo Alto and
The City & County of San Francisco**

I. Welcome and Introductions.

Julie Weiss, IPM Coordinator, City of Palo Alto welcomed the 44 participants at the meeting and discussed the agenda. She then introduced the keynote speaker, Dr. Phillip Dickey, staff scientist with the Washington Toxics Coalition in Seattle, WA, who presented an overview of his approach to developing an “Approved Pesticide List” (aka, “Reduced Risk Pesticides List”).

II. Keynote Presentation.

Issues in Developing and Applying Approved Pesticide Lists Phillip Dickey, PhD.

Dr. Dickey presented the following rationales for development of Approved Pesticide Lists:

- Reduce the total number of pesticide products in use.
- Eliminate products with negative characteristics vis-à-vis human and environmental health.
- Identify least-toxic pesticide products.
- Establish a model transparent pesticide screening process.
- Build a market for less-toxic pesticides where considerable buying power can reduce costs.
- Increase awareness that hazards posed by pesticides involve worker safety, public safety, water quality, and endangered species.

The concept of an approved pesticide list evolved in 1999 when Dr. Dickey was hired by the City of Seattle, WA to conduct a toxicological evaluation of pesticides used by agency staff. The City intended to use the evaluation process to prioritize pesticides to be phased out in order to reduce pesticide use. To accomplish this task, Dickey developed a pesticide hazard evaluation screening process based on the product’s acute hazards and other characteristics of the product’s active ingredient (information on inert ingredients is generally not available to the public so could not be independently evaluated).

The hazard screening process focuses on the following criteria:

| Table 1. Hazard Evaluation Checklist | | | |
|--|--|---------------|--------------|
| Hazard Criteria | Presence and/or Level of Hazard | | |
| | High | Medium | Low |
| Acute toxicity (EPA Signal Word on Label) | Danger | Warning | Caution |
| Restricted-use Status | Yes | No | No |
| Carcinogenicity | Known, Likely | Possible | No, Unlikely |
| Reproductive/Developmental Toxicity | Listed | Listed | Not Listed |
| Endocrine Disruption Potential | Known or probable | Suspected | Not Listed |
| Persistence in Environment | >100 days | 30-100 days | <30 days |
| Mobility in Soil | High | Moderate | Low |
| Off-Target Effects: • Clean Water Act Section 303(3) pollutant | Yes | No | No |
| • Ecotoxicity to birds, fish, bees, wildlife | High | Medium | Low |

This screening process led to the development of a tiered hazard checklist system that flagged products into 4 distinct hazard tiers:

- Tier 1: Highest Concern.
- Tier 2: Moderate Concern
- Tier 3: Lowest Concern.
- Tier 4: Not Enough Information Available for Evaluation.

The Tiered system was used to create an “Approved Pesticide List” for Seattle. Later in 1999, the City of San Francisco, as part of its IPM program, adopted the tiered pesticide hazard ranking

system, and coupled it with pesticide exposure assessment by its IPM Technical Advisory Committee to create an Approved Pesticide List.

The San Francisco IPM ordinance specifies pest monitoring, treatment thresholds, and prevention as the first line of defense against pest problems. Pesticides on the Approved List are available as a last resort, to be used only after non-chemical alternatives are exhausted or unavailable. In all cases, pesticides can only be used as a component of an IPM program and not as a “silver bullet.”

City of Palo Alto also uses the tiered hazard screening system. It is modified slightly to include some specific concerns raised in Palo Alto.

For an in-depth discussion of the Dickey tiered hazard system, visit the following URL: www.cityofseattle.net/environment/pesticides.htm. (On the Seattle home page, scroll down to “Pesticide Product Review Process” and select “Preliminary Evaluation of Pesticides Used by the City of Seattle-Philip Dickey”).

Issues to be Considered Regarding Approved Lists:

Dr. Dickey discussed the following issues that impact development of Approved Pesticide Lists

- **Hazard Evaluation vs. Risk Assessment.** Agencies must decide which methodology to use to evaluate actual or potential adverse effects of pesticides on humans, wildlife, and the environment. Two common methods are the Dickey hazard evaluation system, and a risk assessment system that in some way takes into account quantities of product used and levels of exposure expected. Dr. Lois Levitan used a modified risk-based approach in her review of pesticide products for Santa Clara County’s Approved List, although the risk aspect was limited by the wording of the ordinance which specifically prohibits many ingredients. (Dr. Levitan’s risk based approach can be reviewed at the following URL: <http://environmentalrisk.cornell.edu/PRI/Publications/SantaClaraReport040409.pdf>)

A key difference between the two systems is the question of exposure to the pesticide. The hazard evaluation system does not evaluate exposure. The risk assessment method does estimate the amount of pesticide exposure when determining risks posed by pesticides. In San Francisco, the tiered-hazard results are used as a starting point and are combined with consideration of use scenarios by the technical advisory committee to produce the approved list.

Dr. Dickey emphasized that his tiered hazard screening system is not a risk assessment. Instead it is an initial cataloguing and hazard characterization. It identifies potential hazards of the pesticide products and may also characterize the degree of hazard (e.g. low, medium, or high) or the certainty of the hazard (possible, probable, or known). This hazard assessment identifies, for example, if a product contains a possible carcinogen (cancer-causing ingredient), but does not try to estimate how much exposure is required for harm to occur.

He pointed out that risk assessments are only able to estimate risk subject to considerable uncertainties arising from incomplete toxicology data and current limitations in their ability

to model the effect of exposures to many chemicals at one time. Thus, even though a risk assessment may be able to deliver a quantifiable result, there immediately arise valid questions about the precision, accuracy, and relevance of that number.

Dr. Dickey explained that a complete risk assessment seeks to determine the likelihood of a given set of outcomes in a particular population, while a hazard assessment simply provides “strong advice” that can be used to improve decision making for specific context. With the hazard system, it is possible to decide as a matter of principle not to use any products containing known or probable carcinogens (or other health or environmental hazards) without seeking to determine exactly how many cancers might occur as a result of continuing to use the products.

He compared the risk-based Approved List for Santa Clara County with his hazard-based Approved List for San Francisco and other agencies. He pointed to their different approaches that nonetheless led to similar Approved List results with minor differences. This occurred because neither evaluation system is purely risk or hazard, but both are in fact hybrids.

- **Inert Ingredients.** Information on so-called “inert” ingredients contained in pesticide products should be made public. Currently, most inert ingredients are considered to be trade secrets. However, these ingredients are not well tested, many are biologically active, and some are not benign. While the EPA receives a list of inert ingredients from manufacturers during the pesticide registration process, except for a limited number of whole-product tests, toxicological testing is based solely on the active ingredients in the products. This produces an incomplete analysis of potential health risks to humans, wildlife, and the environment.
- **Interpreting Pesticide Label language.** Health and safety wording is limited to acute (short-term) toxicological hazards (using the signal words “danger”, “warning”, “caution” to indicate high, medium, and low hazards from ingestion, inhalation, skin contact, or eye contact. Chronic (long-term, low-dose) health risks, synergistic effects of exposure to multiple pesticides, and other safety concerns are not currently taken into account on pesticide labels
- **FIFRA-Exempt Pesticides (Federal Fungicide, Insecticide, and Rodenticide Act).** The U.S.EPA’s reduced-risk pesticides program exempts certain pesticides manufactured from “food-grade” substances (e.g., citric acid) from EPA registration requirements. Exempt active ingredients are defined and listed in FIFRA Section 25(b) and exempt inert ingredients must be found on EPA’s “list 4A” and named on the product label. No toxicity tests, no efficacy tests, nor any information on environmental fate of the chemical component(s) in these products is required. While “fast-tracking” low-risk pesticides to the market has some benefits, a complete lack of regulatory testing makes comparisons with registered products difficult. In fact, some exempt products would be placed in EPA’s highest hazard category for eye hazard if they were required to be tested.
- **Using standard, government lists of carcinogens, reproductive poisons, such as Proposition 65, etc.** While these lists utilize a balanced review of best available science,

and are generally accepted as authoritative, such lists are always out of date and many chemicals have not been considered.

- **Ease of Pesticide Evaluation Process.** An advantage of the tiered hazard evaluation system is that it is relatively easy to use. With some training, IPM Coordinators, IPM Technical Advisory Committees, independent consultants, and other non-toxicologists can learn to screen pesticide products and rank them in hazards tiers.
- **Updating Approved Lists.** Approved Lists need to periodically updated as new pesticide products come onto the market, product registrations change, new hazard or risk information become available, testing errors are discovered, or better pesticide evaluation methods become available.

Dr. Dickey concluded by stating the importance of moving beyond the Approved Pesticide List concept, and focusing on innovations such as the development of pesticide-free parks and community gardens, which has emerged in Seattle. These projects have become engines for innovation in non-chemical pest management, and a source of community pride.

III. Overview: Selected Approved Pesticide List Programs.

Chris A. Geiger Ph.D., IPM Coordinator, San Francisco

Dr. Geiger gave an overview of the Approved Pesticide lists currently used by various cities and counties in California and highlighted some of the differences among the lists (see the Comparative Pesticide List Table attached to this document for more detail). He pointed out that some localities have a single Approved List like the City of San Francisco's, while others such as the City of Santa Cruz have multiple lists (Allowed list, Limited Use list, and a Research list). The Santa Clara Valley Water District has an on-going pesticide screening process for their Approved list, especially for pesticides used in urban landscapes and revegetation sites. They also conduct field trials to evaluate the efficacy of candidate pesticides.

Dr. Geiger indicated that development of a single Approved List that could be used by all agencies in the region might not be feasible. For instance, San Francisco and Santa Clara County's Approved Lists must comply with IPM ordinance provisions that include restrictions on certain pesticides, whereas the Approved List process in Santa Monica is not governed by ordinance or policy provisions. However, comparing experiences and approaches of various agencies is very important and is the major theme of this workshop. Collaboration and resource sharing among cities, counties and other local agencies could assist in development of a regional pesticide screening process for Approved Pesticide Lists and a regional web-based pesticide reporting system for end users (Naresh Duggal from Santa Clara County has developed a new database that may be useful). Other possible collaborations include development of regional monitoring, research, and training programs.

IV. Panel Discussion: IPM Program Managers and End Users Discuss their Experiences Sheila Daar, IPM Consultant City of San Francisco, Moderator.

The panel discussion began with three IPM coordinators and an IPM consultant providing brief descriptions of their IPM programs, including strengths and weaknesses. These presentations were followed by presentations from three end-users who provided their perspectives on the pros & cons of an Approved List system (or a “Do-Not-Use” list system).

A. Julie Weiss (IPM Coordinator, City of Palo Alto)

Palo Alto's IPM policy and subsequent IPM efforts stem from water quality concerns related to organophosphate (OP) pesticide use. While OP use was predominantly from residential sources, City of Palo Alto end-users voluntarily discontinued the use of two major OP chemicals (clopyrifos and diazinon) prior to the required phase-out dates. To proactively address future pesticide concerns, the Water Quality (pollution prevention) staff partnered with staff pesticide end-users to craft an IPM policy, a city-wide strategy and unified effort to seek less-toxic, IPM based pest control. A subsequent regional storm drain permit aligns with and further supports these goals.

Weakness of the IPM Program:

- No approved lists (only a do-not-use list). This makes it difficult to justify the use of certain pesticides on city property to the public. City staff is interested in developing an approved list to make pesticide use criteria transparent and to assist with IPM outreach to the public.
- Shortage of staff and resources to manage and review IPM program elements and outcomes.

Strength of the IPM Program:

- IPM is of interest to end-users, who are willing to work together to find non-chemical and least-toxic solutions to pest problems.
- This interest has given the IPM program momentum and increased participation.
- Strong public outreach e.g., on-line pesticide use information for residents, community workshops in conjunction with City's compost workshops, extensive funding and active local participation in the regional Our Water, Our World Program.

B. Karl Bruskotter (IPM Coordinator, City of Santa Monica)

In the mid-1990s a sustainable Cities program was the driving force for the IPM program. Collaboration between City staff and a UCLA toxicology consultant was developed to evaluate pesticide usage in the area. There was no policy or ordinance to guide the program.

Weakness of the IPM Program:

- There is a limited IPM outreach to the general public

Strength of the IPM Program

- Have institutionalized IPM. Consistently catch staff “doing the right thing.”
- Approved pesticide list available for indoor and landscape products
- Have part-time IPM Coordinator

- Have budget for IPM training
- Have initiated Pilot IPM projects
- Have involved people with open space management

C. Chris Geiger (IPM Coordinator, City and County of San Francisco)

San Francisco has strong laws on public hearings and the legislative process. Initially activist groups documented pesticide use by City staff. In 1996, their findings and a major media campaign against the use of pesticides led to the passage of an IPM Ordinance. Initially, the ordinance called for IPM on all city/county property and a total ban on pesticides by January 1, 2000. Responding to immediate adverse reactions from staff as well as community members to some of the provisions, the ordinance was quickly revised to exempt “public health” pesticide uses from the Ordinance, and to allow limited use of “approved” pesticides.

In 1999, Debby Raphael, the newly hired IPM coordinator contracted with Dr. Dickey to screen 160 pesticide products nominated by city staff for the Approved list. A committee comprised of city staff, community activists, pest control professionals, county agricultural commissioner staff, and cooperative extension advisors was formed to assemble the initial Approved pesticide list. Using information from Dickey’s review plus their own professional expertise regarding the potential for non-target pesticide exposure under various conditions, the committee discussed each candidate pesticide during a 10-hour marathon meeting, and determine which products to place on the Approved list with or without special application limitations.

By August 2003 the “Approved” list contained 28 products, plus 43 designated as “Limited Use,” and 11 as “Limited Use of Special Concern.” The products on the Approved list can be used at the discretion of the pest management staff *as a last resort within an IPM program* as described above. Pesticides in the “limited use” categories on the Approved list must be applied according to city-defined restrictions specified for each product. The Approved list is reviewed and updated annually in a formal process involving community members, city/county staff, and the Commission on the Environment.

Weakness of the IPM Program:

- Needs fine tuning of the exemption process
- Screening of pesticides/collaborative methods
- Making sure people are aware of non-chemical methods
- Residential pesticide usage a big issue

Strength of the IPM Program:

- Lots of ideas, information and new possibilities
- Structure/landscape programs are both addressed
- Pesticide database-help pesticide education (exp. 70-80% reduction in Tier-1 products; 80% reduction on the use of Round-up™.)

D. Phil Boise (IPM Consultant, Urban/Ag Ecology, City of Santa Barbara)

A regional IPM group composed of IPM coordinators; school landscape maintenance staff; childcare providers; and those with experience using alternative pest management methods was

established to obtain collective answers to pesticide/herbicide related issues. A Pest Management Zone (PMZ) idea/model was developed to screen pesticide products based on exposure and hazard levels. The PMZ model uses the following criteria:

- Green Zone (high exposure area, e.g. school turf areas)
- Yellow zone (limited exposure area, e.g. perimeter shrub beds)
- Special Zones (specific area usage such as golf course greens; depends upon types of pesticides)
- A “go-list” composed of pesticide products with the lowest hazard (e.g. Tier 3 & EPA exempt chemicals)
- A “wait list” composed of pesticides posing concerns (Tier 2, Tier 1 and Special use pesticides)

Weakness of the IPM Program

- Need to prioritize limited resources to achieve measurable goals, long term plans
- Need better communication tools and more direct communications among agencies

Strength of the IPM Program

- People with a wide range of experience from decision-makers to end-users give ideas and feedback to the program.
- Having an Approved List as part of the IPM program proved beneficial to end-users (community needs to know in advance; managers need flexibility; decision-makers need to budget and measure long term risk reduction goals; and everyone needs common language definitions).

V. End Users Perspective on Pros and Cons of an Approved List & Advice for Implementing an Approved List Program

A. Bob Fiorello (Gardener, Strybing Arboretum, City of San Francisco)

Pros: Approved list as a starting point that every one can use

Cons: May be used as an endorsement tool

Advice: Technical Advisory Committee is important to have to oversee, manage and question the end-use of pesticides.

B. Luis Agurto (Structural Pest Control Contractor, Pestec Co, City of San Francisco)

Pros: Approved list provides good information, tips and recommendations

Cons: List can make PCOs shy away and not participate in bid contracts

Advice: IPM Program should consider issues such as why pesticides are used in the first place? What are the non-chemical replacements? If no replacement available, what is the least-toxic product to use.

C. Dave Montero, IPM Coordinator, City of Corte Madera

Pros: Initially he perceived the IPM program as too restrictive, which turned out to be a positive for him.

Cons: None.

Advice: Involve the public in the IPM program; provide education and staff training.

VI. Conclusions from Discussion on Approved List Between Panelists and Participants

- Approved List should not be viewed as an IPM program. It is a tool within IPM.
- Approved List sharing may be beneficial in some service areas. City of Mt. View and Palo Alto have been sharing lists.
- A “Do-Not-Use” list is another useful option.
- The tiered hazard screening system is relatively simple to use. Increasing its complexity should be avoided if possible
- There was general agreement on the usefulness of a common screening process and a central data-base to access every city and county’s Approved List and its end-use based on site specificity /biological community specificity.

VII. Small Group Discussions.

Participants joined small discussion groups to brainstorm on various issues regarding development of Approved Pesticides Lists. Groups were asked to focus on assigned questions and to reach conclusion/action items to present during a general session of all workshop participants. A summary of outcomes from each discussion group is provided below.

GROUP 1

Issue: Developing an Approved Pesticide List.

Moderators: Donna Meyers (Santa Cruz); Sheila Daar (San Francisco)

Questions:

1. What institutional elements should be in place and who should be involved? (For example, if there is a technical advisory committee, who should be on it? How should the public be involved? Are there people in key jobs i.e. contractors, or people from certain community groups that will help move the process along?)
2. What information is needed?
3. What classic pitfalls should be avoided?

Conclusions/Action Items:

- IPM program must be generated first. Approved List is a tool within the IPM program.
- ID and assessment of pest problems and management options is the foundation for IPM program and Approved List.
- Establish formal group to oversee Approved List process
- Involve public, elected officials, department managers, end users (field staff and contractors), purchasing department
- PCO contractors and suppliers must show commitment to IPM and Approved List
- Departments can fit the Approved List to their own specific conditions.
- A system must be in place to audit end users when needed.
- Success of the Approved List is based on communication and trust of all agencies involved (internal); external trust from the public essential to fuel the process moving in the right direction.

GROUP 2

Issue: Pesticide Evaluation Methods.

Moderators: Chris Geiger (San Francisco); Tom Green (IPM Institute, Madison WI).

Questions:

1. What are the pros and cons of the pesticide screening approaches currently available (e.g., “Do-It-Yourself” evaluation, Dickey-style hazard screening, Levitan-style risk-based approach)?
2. What opportunities are there for standardization of the screening process?

Conclusions/Action Items:

Snap shot of screening methods:

- Dickey’s tiered hazard approach (see presentation summary, above).
- Levitan’s risk-based framework screening approach:
 - ✓ Not a classic “risk assessment” approach because it includes a wider range of site-specific conditions for decision-making.
 - ✓ Requires a broader idea of what is a hazard than does classic risk assessment.
 - ✓ Raises the bar on intervention.
 - ✓ Many products otherwise approved are banned by local ordinance (i.e., Santa Clara County).
 - ✓ Toxicological screen similar to Dickey’s; soil mobility analysis different.

- ✓ The insecticide malathion is an example of how differences in data sources can lead to different results.
- ✓ Pesticide resistance management is a factor in adding a pesticide to the Approved list (i.e. the need for several products that can be rotated.).
- Charles Benbrook's Tox Units.
 - ✓ Assumes amount of pesticide use is known.
 - ✓ Primarily designed for agriculture use.
 - ✓ Screen approach is flexible (deals with resistance issue), but complex.
- Joe Kovach's Environmental Impact Quotient and other European models.
- "Do-It-Yourself" evaluations.
- Reconciliation of methods a & b. (Dickey and Levitan to confer as to whether this makes sense.)
- School-specific list.
 - ✓ School Pesticide Coalition (24 groups) reached consensus on evaluation criteria. Includes a hazard screen, some consideration of mode of application, and discussion/resolution of data gaps. Attempts will be made to obtain inert ingredients from companies that pass other screens. Still in development.

Conclusions/Action Items:

- Standardization of pesticide screen is recommended.
- Should convene committee to decide on appropriate screen or set of recommended screens.
- Committee should keep up to date on conclusions of School Pesticide Reform Coalition
- There is an opportunity to pool resources to support committee work
- Attributes desired are transparency, user feedback potential, and financial leverage with manufacturers

GROUP 3

Issue: Operating and Improving the Approved List System.

Moderators: Deanna Simon (San Francisco), Karl Bruskotter (Santa Monica)

Questions:

1. What resources are needed to insure that non-chemical methods are maximized so that pesticide use can be minimized?
2. How can IPM coordinators, end-users, and oversight groups work together positively (e.g., through a technical advisory group)? Who should be involved, and what is the function of such a group?
3. How to institutionalize IPM so it is not reliant on one personality?

Conclusion/Action Items:

- Training, particularly on alternatives to pesticides, how to coordinate and pool actions, and importance of sanitation.
- Training for administrative staff should be different than the end-users. Technical training is needed to give people skills. Training should not assume people get it the first time around (repeat-refresh training approach).
- Encourage pest exclusion (ID pest and keep it out of the area).
- Allocate resources, generate representatives, and do cost benefit analysis.
- Publicize the IPM program and educate the public on what is IPM.
- IPM groups should collaborate on research and fact-finding that can be shared regionally.
- Technical advisory group may be needed to provide peer training, recognize effort, share information, provide feedback and publish newsletter to a list serve or an Amazon-like web link for all to access.
- Single IPM coordinator is not enough to institutionalize IPM. Must involve and expand IPM responsibility to include department heads, principles, etc.

GROUP 4:

Issue: Approved List Exemption Systems.

Moderators: Debbie Rafael (San Francisco), Bart Brandenburg (Contra Costa Co.)

Questions:

1. What approaches are available for handling exemptions (for example, blanket exemptions, “research only” lists, prescreened lists, brainstorm with others)?
2. What are the pros and cons of each approach

Conclusions/Action items:

- Types of available approaches and pros and cons

| Type | Pros | Cons |
|---|---|--|
| Emergency Exemptions | Quick decisions & Approved List gives comfort level | Delayed public accountability |
| Brain storming with others: Cleaning up pests with soapy water vs. killing pests; Use of disinfectants Adding new products | Not regulated; exemption not required | Requires knowledgeable PCO w/ full IPM program |

- In San Francisco, those who applied for exemptions have to come to a public meeting at the end of the year and describe which exempted pesticides they used and what alternatives they are looking for. This generates more trust between the community and Department of Environment.

- Key is to have an open exemption process that involves the public. The rationale for granting the exemption request and the specific criteria for when and how the exempt pesticide product may be used must be very explicitly set forth by the committee/ lead IPM coordinators.
- Steps to avoid needing exemptions in future: product testing, alternatives in place, costs, and documentation.

GROUP 5

Issue: Sharing Resources Among Agencies.

Moderators: Phil Boise (Santa Barbara), Julie Weiss (Palo Alto)

Questions:

1. What resources can be shared (e.g., pesticide screening costs, training, documents, and data base programs)?
2. How can people work together to share them (e.g., standardize pesticide screening criteria, prioritize training as a group)?

Conclusions/Action items.

- Resources available include equipment, people, collective knowledge, and technical expertise.
- Emphasis on sharing people power.
- Joint pilot project: designate an area as pesticide free (e.g., a park), then have a collective approach and open dialogs with each other about results.
- Cross-fertilize efforts: Target task specific, share funding, for end users/new administration, agencies.
- Get people to talk about a common problem or issue (e.g., goat problem— find person who could present on the subject)

VIII. Wrap Up and Next Steps.

A. Findings/Recommendations:

- A framework for fostering communication, mutual support, and resource sharing among IPM coordinators locally, regionally, and statewide should be established. Meetings twice per year at rotating locations are recommended. Meetings should include field tours to observe how technical IPM methods and other program components are utilized by end-users, IPM coordinators, and other stakeholders.
- Local or regional resource sharing could include IPM training, technical expertise/mentoring, equipment, field trials/pilot projects, documents, databases,

workshops/conferences, and fund-raising. Working groups should be formed to initiate collaborative activities.

- A standardized toxicological screening system for pesticides is desirable and feasible.
- A single regional or statewide Approved Pesticide List is probably not feasible due to the site-specific nature of pest problems, differences in local IPM ordinances/policies regarding restrictions on pesticides, differences in IPM resources, and other issues.
- It may be feasible for several local agencies within close geographical proximity, and with similarities in size, pests, IPM ordinances/policies, and resources to share Approved Lists, as is currently the case with the adjacent cities of Palo Alto and Mt. View.
- Hiring a consultant (or group) to facilitate/oversee regional collaborations on behalf of IPM coordinators should be explored.
- Joint fundraising to pay for pesticide screening, IPM consultant services, publications, etc. that benefit all participating agencies should be explored.
- A list serve, website, or quarterly email newsletter highlighting practical IPM activities, resources, institutional problem solving, etc. should be established.

B. Next Steps.

- **Workshop Summary:** A written summary of this workshop's activities and outcomes will be emailed to all participants (Chris Geiger, 415/355-3759)
- **Next Meeting:** It was agreed that participants at this workshop will meet again on October 18, 2004 in San Rafael, CA, hosted by the Marin County IPM Commission (Sandy Ross, Chair 415/383-6130). The host organization will provide the venue, lunch and refreshments, meeting equipment, and will develop a meeting agenda in consultation with others. It is suggested that meeting attendance be limited to a maximum of 35 to 40 participants to maintain group cohesion. Participating agencies might be able to contribute to costs associated with hosting this meeting
- **Standardized Pesticide Screening System:** A preliminary working group was established to explore development of a standardized pesticide screening process. Volunteers: Chris Geiger, Convenor (415/355-3707); Stacey Carlson (Marin County); Christa Conforte (NPS/Presidio Trust); Lois Levitan (Cornell Univ.); Donna Meyers (Santa Cruz); Deanna Simon (San Francisco DOE).
- **Quarterly IPM Information Sharing:** Julie Weiss (Palo Alto 650/329-2117) has agreed to send out a quarterly newsletter comprised of practical IPM activity updates and other useful information submitted to her by workshop participants. Watch for her forthcoming email with guidelines and due dates.
- **Additional Working Groups:** Julie Weiss (Palo Alto 650/329-2117) and Chris Geiger (San Francisco 415/355-3759) will continue to welcome volunteers to pursue implementing additional recommendations listed above.

IX. Workshop Evaluation.

Highlights of verbal feedback solicited from participants as a whole on the workshop is summarized below:

Positive Feedback:

- Very well organized agenda and activities.
- Number of participants (44) right size for cohesion and communication.
- Mind expanding.
- Great diversity of participants and agencies present
- Good to see people in the IPM field 20-30 years are still active.
- Good source of business contacts.
- Great venue and food.

Suggestions for Future Meetings:

- Experienced people, lots of ideas, not enough time! Small groups and question session with panelists needed more time.
- Suggest a “show & tell” component be added to the meeting so participants can learn about the host organization’s IPM activities.
- More people may want to attend the next workshop, but that could sacrifice cohesion of smaller group. How about a “Road Show” (i.e., hold a meeting in the Bay Area one-day, and repeat the same meeting a day or two later in another location).
- Invite wider input when setting agenda for future meetings.
- Add a Happy Hour!