COUNTY OF SANTA CRUZ

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June 1, 2000

AGENDA: June 6, 2000

Board of Supervisors
county of Santa Cruz
701 Ocean Street
Santa Cruz, California 95060

Pesticide Policy

Dear Members of the Board:

On January 25, 2000, your Board took action to support, in concept, the adoption of a County Pesticide Policy similar to one previously adopted by the City of Santa Cruz. At that time, you directed the County Administrative Officer to analyze the proposed policy in coordination with affected County departments, interested members of the public, and a representative of the Farm Bureau and to return with recommendations for the adoption and implementation of a County Pesticide Policy.

The City of Santa Cruz Pesticide Policy states that it "shall be the policy of the City of Santa Cruz for City departments and City contractors who apply pesticides to City property to eliminate or reduce pesticide applications on City property to the maximum extent feasible." The policy established an Integrated Pest Management plan, required an annual report on pesticide use, specified dates by which certain categories of pesticides would be eliminated, identified exemptions, and specified notification procedures.

It is the recommendation of this office that your Board adopt a preliminary County Pesticide Policy which establishes the goal of eliminating or reducing pesticide applications on County property to the maximum extent feasible. It is recommended that this goal be undertaken through the development of a comprehensive Integrated Pest Management Program for all County departments and that the Cooperative Extension department be designated the lead agency in this effort.

This letter will provide information on pesticides in general, the regulation of pesticides, and the current use of pesticides by County departments. It will also present information on Integrated Pest Management, a strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and nontarget organisms. The letter will also recommend a draft Pesticide Policy for your Board's review and approval and will recommend a process for developing a Countywide Integrated Pest Management program.

PROCESS

County Administrative Office staff have twice met with members of the Pesticide Action Coalition (PAC) to discuss their goals for a pesticide policy in the County. PAC members identified two goals: that the County eliminate the use of synthetic pesticides and that the County conduct public education on reducing pesticides. The members of the coalition explained their concerns regarding the use of pesticides and provided information on other jurisdictions which have implemented similar policies. The members of the Pesticide Action Coalition have also expressed their concerns over the presence of inert ingredients in the chemical formulations of pesticides. They are concerned that these inert ingredients when used in combination may make the pesticide more toxic, and that manufacturers are not required to divulge information concerning their toxicity.

Subsequently, we met with a representative of the Santa Cruz County Farm Bureau and with the staff and department heads from those departments which would be most significantly affected by a pesticide policy. In that meeting, we discussed the goals of the Pesticide Action Coalition and how the attainment of those goals would affect departments. We also collected information on the amounts and types of pesticides used by each department.

I am pleased to report to you that each of the departments has already been actively involved in reducing the amount of pesticides used and the risk levels of the pesticides used. Each of the department heads supports a policy which would further reduce the amount and risk of pesticides they use. However, they also expressed concern that any new pesticide policy not compromise their ability to be both efficacious and cost-effective in meeting their responsibilities to the public.

PESTICIDES

The Environmental Protection Agency Office of Pesticide Protection defines pesticides as "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Pests can be insects, mice and other animals, unwanted plants (weeds), fungi, or microorganisms like bacteria and viruses. Though often misunderstood to refer only to ***insecticides,*** the term pesticide also applies to herbicides, fungicides, and various other substances used to control pests. Under United States law, a pesticide is also any substance or mixture of substances intended for use as a plant regulator, defoliant, desiccant, or disinfectant."

Antimicrobial agents are used on inanimate objects and surfaces and are regulated by the EPA. Products intended for the control of fungi, bacteria, viruses or other micro-organisms ***in or on living humans or animals*** are considered drugs, not pesticides, and are therefore regulated by the U.S. Food and Drug Administration. These products, such as medications, topical creams and sprays intended for use on humans, are utilized by the Health Services Agency, but are excluded from this discussion and the proposed pesticide policy.

All pesticides are toxic (poisonous) in some way, including many common household products like cleansers, bleach, vinegar, polish, and salt. The degree of toxicity ranges from slight to extreme. By their nature, many pesticides may pose some risk to humans, animals, or the environment because they are designed to kill or otherwise adversely affect certain living organisms. At the same time, pesticides are often useful because of their ability to control disease-causing organisms, insects, weeds, or other pests.

All pesticides sold in the United States must be registered with the Environmental Protection Agency (EPA). All pesticides must have a label with directions for use, precautionary statements, first aid treatments, storage and disposal information, and a registration number. Some categories also have assigned signal words. The registration number shows that the product has been reviewed by the EPA and that the EPA has determined that the product can be used with minimal risk if the directions on the label are properly followed. The signal words indicate the pesticide's potential hazard of immediate or acute injury to humans.

In discussing the use of pesticides, it is helpful to distinguish between toxicity and hazard. Toxicity is the capability of a substance to cause injury or death. Hazard is a function of two factors: toxicity and potential exposure to the toxic substance. Toxic substances can pose a relatively low hazard if their use can minimize or avoid exposure to people and other nontarget organisms. For example, some toxic compounds are used in low concentrations and enclosed in containers with a bait. These enclosed baits, such as ant stakes, minimize nontarget exposure, thereby greatly reducing hazard.

The following chart shows the EPA toxicity classes, ratings, and signal words.

EPA Toxicity Class	EPA Toxicity Rating	Signal Word
I	Highly toxic	Danger - Poison
II	Moderately toxic	warning
III	Slightly toxic	Caution
IV	Practically nontoxic	None required

CURRENT USE OF PESTICIDES BY COUNTY DEPARTMENTS AND CONTRACTORS

Currently, pesticides are used on county property by the Parks Department, General Services, Public Works, Agricultural Commissioner's Office, the Mosquito Abatement District, the Redevelopment Agency, the Health Services Agency, and by contractors. Pesticides in current use include those from categories I, II, III, and IV, and the targeted pests include mosquitoes, rats, mice, burrowing rodents, fleas, broadleaf weeds, aquatic weeds, cut worms, bacteria, and viruses. A survey of the pesticides used in 1999 by County Departments is provided as Attachment A. This table shows the types of pesticides, the target pests, the location and frequency of application, the annual quantity utilized, labor and material costs, and the EPA categories.

The Health Services Agency, the Parks Department, and General Services all use antimicrobial agents for infection control and disease prevention. These agents are used in park restrooms, clinic examining rooms, public restrooms in County facilities, and in the morgue to kill bacteria and viruses, such as staphylococcus, pseudomonas, and salmonella, and to prevent the spread of infections, including hepatitis and tuberculosis.

INTEGRATED PEST MANAGEMENT (IPM)
History and Definition

The development of synthetic pest controls during and after World War II, in combination with improvements in application technology, dramatically increased the potential for farmers to control insects, pathogens, weeds and nematode pests. The ability to produce a variety of high value fruits and vegetables made pesticides an important and economical way of reducing production risks and increasing yields. However, problems associated with chemical pest controls were soon observed. Insects, formerly under natural control by predators and parasites, began to cause significant damage. The insects themselves became genetically resistant to chemicals applied for their control. Agricultural workers began to report illnesses from exposure in the workplace. During the 1950's, researchers at the University of California warned of the danger of relying on a single pest control approach, such as pesticide use. The term integrated pest management was first used in 1959 to incorporate the concept of economic thresholds with the integrated control approach.

Universities all over the country are involved in research and study of Integrated Pest Management methods and techniques. University of California scientists were early leaders in organized IPM research , and in 1979, the University of California Statewide IPM Project was approved as a special legislative appropriation for the University's budget. Currently, the Statewide IPM Project is part of the University of California's Division of Agriculture and Natural Resources, and helps to facilitate and coordinate IPM research and extension activities that occur throughout the University's Cooperative Extension.

Integrated Pest Management is a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes the economic, health, and environmental risks. It is a strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and nontarget organisms. Preferred pest management techniques include encouraging naturally occurring biological control, using alternate plant species or varieties that resist pests, selecting pesticides with a lower toxicity to humans or nontarget organisms, adoption of cultivating, pruning, fertilizing, or irrigation practices that reduce pest problems, or changing the habitat to make it incompatible with pest development. Broad spectrum pesticides are used as a last resort when careful monitoring indicates they are needed according to pre-established guidelines. When treatments are necessary, the least toxic and most target-specific pesticides are chosen.

Integrated Pest Management is not a new system of thought; it is has been used in the growing of food crops for many years. IPM cannot be implemented overnight; it requires long-term thinking and modification of plant selection and maintenance practices. IPM is not a rigid program of management techniques; it is a balance of all techniques. IPM was not designed as a formula for eliminating or reducing pesticide use. However, well-developed, scientifically based IPM programs have consistently resulted in reduced pesticide use, as they employ a wider array of pest management techniques. IPM programs by design result in safer, more judicious use of pesticides.

. Implementing an Integrated Pest Management program requires considerable forethought, knowledge, and observation, including a thorough understanding of pests, their life histories, their environmental requirements and natural enemies as well as establishment of a regular systematic program for surveying pest, their damage and/or other evidence of their presence. The preferred methods in an IPM program are those which prevent pest problems and, therefore, eliminate the need for pesticide applications in the first place.

PROPOSED PESTICIDE POLICY

It is recommended that your Board adopt a preliminary Pesticide Policy which outlines the broad goals and guidelines for pesticide use on County property. During the next year, this policy will be refined to specifically address the pesticide issues faced by County departments.

The recommended Pesticide Policy, provided as Attachment B, establishes the goal of eliminating or reducing pesticide applications on County property to the maximum extent feasible through the development of a comprehensive Integrated Pest Management program. The recommended policy statement also identifies goals regarding dates by which certain categories of pesticides will be eliminated, and goals regarding notification procedures. The policy includes Integrated Pest Management guidelines, training guidelines for staff who apply pesticides, contractor requirements, and exemptions.

Proposed Ban on Toxicity Class I and II Pesticides

The proposed Pesticide Policy recommends goals of eliminating to the maximum extent feasible the use of EPA Toxicity Class I pesticides by January 1, 2002 and the use of EPA Toxicity Class II pesticides by January 1, 2003. Pesticide elimination is not part of Integrated Pest Management, however, it is included in the policy in response to community concerns. While IPM definitely encourages alternatives to pesticides when feasible, IPM guidelines include the use of chemical controls when necessary. These goals are included in the recommended policy with the understanding that exemptions will be developed for the use of some pesticides when necessary.

The Pesticide Policies of San Francisco, Marin County, and the City of Santa Cruz all include sections which ban Class I and II pesticides after certain dates, and each of these jurisdictions also includes exemptions to the bans. At this time, two possible exemptions have been identified for evaluation and possible recommendation for inclusion in the County Pesticide Policy. These possible exemptions are for microbial agents and for pesticides used to control burrowing rodents on the Pajaro and Salsipuedes levees.

The City of Santa Cruz, the City/County of San Francisco, and the County of Marin all exempt any pesticide used for the purpose of improving or maintaining water quality at water treatment plants, wastewater treatment plants, reservoirs and related collection, distribution and treatment facilities, or the treatment of sewage and the use of antimicrobial agents for the purpose of protecting public

health and safety in the provision of health care and the treatment of water in public swimming pools. The San Francisco policy excludes antimicrobial agents from the definition of pesticides, and the Marin policy also exempts the use of antimicrobial agents.

The recommended Pesticide Policy for Santa Cruz County does not exempt antimicrobial agents from the goals of pesticide elimination. However, such an exemption will be carefully evaluated for possible recommendation to your Board in the annual report.

In addition, the Public Works Departments has expressed significant concern about their ability to maintain the integrity of the Pajaro and Salsipuedes levees if they are not allowed to use Class I and II pesticides to control burrowing rodents. Preliminary examinations of available alternatives to Class I and II pesticides have not identified workable options. It is anticipated that the Integrated Pest Management Coordinator will have access to greater information and may be able to recommend feasible alternatives. However, it is also possible that the need to maintain the integrity of the levees may also result in the recommendation for an exemption in the annual report.

Notification Procedures Included in the Proposed Policy

The Proposed Pesticide Policy includes the goal of providing notification of pesticide use on county property according to identified procedures. These procedures are established as a goal in the recommended policy because sufficient time is not available at this time to work with each affected department to develop workable, responsive notification procedures.

The procedures in the Proposed Policy were based on notification procedures used by the City of Santa Cruz. However, in some instances, the responsibilities of City departments and County departments vary considerably in terms of scale. For instance, the City of Santa Cruz reports that they maintain approximately one mile of unimproved rural road (no curbs or gutters) out of a total of approximately 110 miles. The County Public Works Department, on the other hand, estimates that they are responsible for maintaining approximately 450 miles of rural roadways out of a total 600 miles. This difference in scale may have significant effect on the ability of the department to provide notification of pesticide use through the use of signs. However, the Department anticipates no difficulty with providing information on pesticide use via telephone. Requirements for notification procedures will be developed with individual departments during the first year of the program.

INTEGRATED PESTICIDE MANAGEMENT PROGRAM

In order to implement the proposed Pesticide Policy, it is necessary to develop an Integrated Pesticide Management program. An IPM program is a complex document which requires a thorough review of inter-related bio-systems. The development of the program requires comprehensive knowledge of habitat management, maintenance practices (such as modification of watering, mulching, and mowing schedules), physical controls (such as mechanical traps and barriers), biological controls, and landscape design.

It is the recommendation of this office that the Santa Cruz County UC Cooperative Extension be assigned the responsibility for developing the County's IPM program with oversight from the County Administrative Office. The history of the University of California's Cooperative Extension in developing and researching IPM, the department's joint relationship with the University of California and with the County, the local staff's knowledge of Integrated Pest Management programs, and the staff's ability to access, understand, and incorporate new information in the rapidly changing field of pest management make this department uniquely qualified to assume leadership of this effort. In addition, the department's involvement will assure that the program is conducted in a scientifically valid manner, with a rigorous monitoring and evaluation component. Staff at Cooperative Extension are excited about the prospect of developing the County's program and are eager to work with the departments.

The development of the County's IPM program will be under the oversight of the County Administrative Office, the overall supervision of Laura Tourte, the Director of the Santa Cruz Cooperative Extension, and the direct supervision of Steve Tjosvold, the department's farm advisor in the field of environmental horticulture. Cooperative Extension plans to employ a Staff Research Associate II, master's level position, as the IPM Coordinator for Santa Cruz County. It is anticipated that Cooperative Extension can assume responsibility for development of the Integrated Pesticide Management program for approximately $45,000 per year. A recommended agreement can be presented to your Board as a Supplemental Budget request.

The IPM Coordinator will be responsible for convening a departmental IPM working group consisting of representatives from each County department which utilizes pesticides. The IPM Coordinator will be responsible for working with County departments to develop the County's IPM program, for refining the Pesticide Policy, for presenting regular progress reports and an annual report to your Board, and for developing an IPM public education component. The working group members will be responsible for establishing the goals and objectives for operations-level IPM activities and implementing IPM in each department.

The first step in establishing the County's Integrated Pest Management program will be determining the specific goals for each department. It can be expected that goals will vary considerably from agency to agency according to the function of the agency, access of the public and wildlife to agency grounds, public and employee concerns, and local priorities. Once the goals have been established, procedures for reaching these goals and for monitoring progress must be developed.
The IPM Coordinator will be responsible for holding a series of community meetings to allow public review of the IPM program. The first public meeting will be held prior to the mid-year report, and subsequent meetings will be scheduled on a quarterly basis.

The IPM Coordinator will provide leadership and expertise in the development of departmental procedures which are anticipated to include the following IPM activities:

1. Identify all potential pests (including all life stages) in the system, verifying damage symptoms and natural enemies.
2. Establish monitoring guideline for each pest, based on regular checks for pests or damage symptoms or other evidence of their presence.
3. Establish injury levels and action thresholds (pest population size associated with intolerable damage) for each individual pest species.
4. Establish a regular monitoring program for detecting these pest levels and determining when to treat.
5. Establish a record keeping system to evaluate and improve the IPM program.
6. Develop a list of acceptable management strategies for each pest.
7. Develop specific criteria for selection of pest management methods. Choices of method should meet the majority of the following criteria:
   - least disruptive of natural controls
   - least hazardous to human health
   - least toxic to nontarget organisms
   - least damaging to the general environment
   - most likely to produce permanent reduction of the pest
   - easiest to carry out effectively
   - most cost effective in the short and long term
8. Develop guidelines to be followed each time a pesticide is used.
9. Continually review the procedures to refine information and criteria to meet the needs of each department and to keep up with changes in the field.

The IPM Coordinator will work with each individual department, with the working group as a whole, and with the public to develop a department-specific IPM program. The IPM Coordinator will provide a mid-year report to the Board of Supervisors outlining progress towards developing the IPM program. In addition, an annual report will be submitted to the Board prior to budget hearings. This report will include the following:

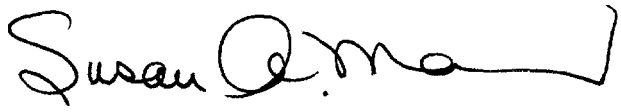
- the recommended IPM plan,
- the types and amounts of pesticides used during 2000 compared to those used in 1999,
- recommended modifications to the Pesticides Policy,
- recommended exemptions to the Pesticides Policy, if any, and a procedure for obtaining further exemptions if necessary, and
- recommendations for increased staff and materials, if needed, to implement IPM.

I would like to acknowledge the department heads and staff who have assisted in the preparation of this report and who will be involved with the implementation of the program. Even without the establishment of a coordinated pest management program, it is clear that each department has been actively involved in reducing their use of pesticides. Their willingness to participate in the proposed Integrated Pest Management program is greatly appreciated.

I would also like to take this opportunity to thank the members of the Pesticide Action Coalition for bringing this important matter to our attention. Their assistance in providing information on policies established by other jurisdictions and in reviewing drafts of this material was very helpful. I believe that the development and implementation of an Integrated Pest Management program is an appropriate and beneficial project for Santa Cruz County, and I am pleased to recommend it to your Board for action.

IT IS THEREFORE RECOMMENDED THAT YOUR BOARD adopt the proposed Pesticide Policy and direct the County Administrative Officer to negotiate an agreement with the UC Cooperative Extension department for the development of a Countywide Integrated Pest Management program.

Very truly yours,



Susan A. Mauriello
County Administrative Officer

Attachments:

- A: Survey of the pesticides used in 1999 by County departments
- B: Proposed Pesticide Policy

cc: Celia Scott, Pesticide Action Coalition
David McNutt, M.D., M.P.H., County Health Officer
Barry Samuel, POSCS Director
Roy Holmberg, General Services Director
John Fantham, Public Works Director
Dave Moeller, Agriculture Commissioner
Laura Tourte, Cooperative Extension Director
Michael Theriot, Farm Bureau

Attachment A
Survey of 1999 Pesticide Use

Agricultural Commissioner's Office
1999 Pesticide Useage

05125100

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Cat.	Signal Word
Fumitoxin	Fumigant	Grain insects	Grain storage bin	Every 12 -18 months	13 tablets	$35	$2	$37	I	Danger
Dibrom	Insecticide	Fruit flies	Fruit fly traps throughout the County	Every 8 weeks, April through October	4 qts				I	Danger

Mosquito Abatement District
1999 Pesticide Useage

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor Cost	Material Cost	Total Cost	EPA Cat.	Signal Word
MPede	Insecticide	Bees	Swarms	Twice in 1999	.16 gal				II	Warning
Agrique MMF	Insecticide	Mosquitos immature	Standing water	152 times in 1999	37.1 gals	$970	$1,600	$2,570	IV	Caution
Methoprene liquid	Insecticide	Mosquito larvae	Standing water	177 times in 1999	2.5 gals	$4,846	$590	$5,436	IV	Caution
Methoprene briquets	Insecticide	Mosquito larvae	Standing water	Once in 1999	.55 lbs	$25	$17	$42	IV	Caution
Methoprene pellets	Insecticide	Mosquito larvae	Standing water	32 times in 1999	36 lbs	$1,216	$943	$2,159	IV	Caution
Vectobac G	Insecticide	Mosquito larvae	Standing water	18 times in 1999	186 lbs	$727	$345	$1,072	IV	Caution
Vectolex	Insecticide	Mosquito larvae	Standing water	84 times in 1999	1,475 lbs	$4,846	$5,694	$10,540	IV	Caution
Teknar HP-D	Insecticide	Mosquito larvae	Standing water	120 times in 1999	2.5 gals	$1,211	$65	$1,276	IV	Caution
Golden Bear oil	Insecticide	Mosquito immature	Poluted water	115 times in 1999	52.5 gals	$2,420	$140	$2,560	III	Caution
Rodeo	Herbicide	Vegitation	Aquatic trails to water breeding sites	Once in 1999	.016 gal	$25		$25	III	Caution

General Services Department
1999 Pesticide Useage
05/25/00

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Cat.	Signal Word
Maki (bait)	Rodenticide	Rats/mice	3650 Graham Hill Rd, 1430 Freedom 701 Ocean (holding cells)	3 times in 1999	1 oz	Contract	Contract	$180	II	Caution
Precor/Saga Kicker	Insecticide	Fleas	701 Ocean	Once in 1999	2.5 oz	Contract	Contract	$95		Warning
Dursban	Insecticide	Ants, wasps, spiders, bees	3650 Graham Hill Rd 1400, 1430 Emeline 1030 Emeline	7 times in 1999	12 oz	Contract	Contract	$650	II	Warning
Empire	Insecticide	Ants	Courts, 100 Rountree 3650 Graham Hill 259 Water St	10 times in 1999	10 oz	Contract	Contract	$800	III	Caution
Fly Gel	Insecticide	Drain flies	259 Water St	Once in 1999	.5 oz	Contract	Contract	$65		Caution
Ozium	Antimicrobial	Bacteria	144 Blaine St	Daily	20 oz	0	$29	28.5		Caution
United 64	Antimicrobial	Bacteria	Water St Detention	Discontinued	110 gal	0	$1,218	1218.42		Danger
Liquid Comet	Antimicrobial	Bacteria	County facilities	Daily	96 gal		$467	$467		Caution
Neutracide	Antimicrobial	Bacteria	County facilities	Daily	576 gal		$6,998	$6,998		Danger
Ster-Bat Blu	Antimicrobial	Bacteria	Rountree Detention	Daily	24 gal		$437	$437		Danger
409 Anti-bacteria	Antimicrobial	Bacteria	County facilities	Daily	100 gal		$1,323	$1,323		Caution
Elimstaph	Antimicrobial	Bacteria	County facilities	Discontinued	192 gal		$2,504	$2,504		Warning
Super Jiffey San	Antimicrobial	Bacteria	144 Blaine St	Daily	3 gal		$78	$78		Danger

Health Services Agency
1999 Pesticide Useage
05/25/00

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Cat.	Signal Word
Pure Bright Germicidal Bleach	Anti-microbial	Bacteria, viruses	Morgue, restrooms, floors & exam rooms	Daily	70 gal	$30,000	$150	$30,150	I	Danger
Professional Line Comet Creme Cleanser	Anti-microbial	Bacteria, viruses	Restroom toilets, sinks	Daily	10 cases	$3,500	$80	$3,580	II	Caution
Neutracide	Anti-microbial	Bacteria, viruses	Clinics, labs, phones, exam tables, trash cans	Daily	24 cases	$47,000	$750	$47,750	I	Danger
Amphyl	Anti-microbial	Bacteria, viruses	Lab surfaces, appliances equipment	Daily	1 qt	$3,000	$15	$3,015	I	Danger
Envirocide	Anti-microbial	Bacteria, viruses	Lab surfaces, appliances equipment	Daily	3 gal	$8,000	$70	$8,070	II	Caution

Note: Estimated labor costs for housekeeping services when applying products or for microbioilogist and lab staff cleaning work areas after testing

Parks, Open Space, and Cultural Services
1999 Pesticide Useage
05/25/00

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Cat.	Signal Word
Best 16-6-8 w/TRIMEC	Herbicide	Broadleaf weeds	Polo Grounds Highland Park Pinto Lake Park	Every 2-3 years	4,500 lbs	$600	$540	$1,140	III	Caution
Dragnet	Insecticide	Ants, sowbugs	Inside Swim Center Outside Swim Center	3 times year 2 times year	15 oz	Contract	Contract	$600	I	Danger
Fumitoxin	Rodenticide	Gophers	Turf areas	3-4 times per year at large parks 8 apps per time	500 tablets	$660	$30	$690	I	Danger
Garlon 4	Herbicide	Poison Oak	Undeveloped park areas	4-5 times per year Not needed in 1999	0	$0	$0	$0	III	Caution
Gopher Getter I	Rodenticide	Gophers	Turf areas	IO-20 times per yr	30 lbs	$1,500	$100	$1,600	I	Danger
Gopher Getter II	Rodenticide	Gophers	Turf areas	IO-20 times per yr	30 lbs	$1,500	$100	$1,600	III	Warning
MAKI Parafin Blocks	Rodenticide	Rats	Bait stations at Swim Cntr	Daily	18 lbs	Contract	Contract	$1,500	I	Danger
Ronstar	Herbicide	Weeds	Planter beds	I-2 times per year	100 lbs	$240	$150	$390	II	Warning
Roundup Pro	Herbicide	Weeds	All County parks	2-4 times per year	3-4 gals	$3,300	$180	$3,480	III	Caution
Surflan	Herbicide	Pre-emergent weeds	Planter beds, roadsides	2-3 times per year	1.7 gal	$0	$153	$153	III	Caution.
Trimec	Herbicide	Broadleaf weeds	Athletic fields	Every 2-3 years	0	$0	$0	$0	I	Danger
Turflan	Herbicide	Broadleaf weeds	Turf areas in athletic fields	Every 2-3 years	0	$0	$0	$0	II	Warning

Parks, Open Space, and Cultural Services
1999 Pesticide Useage
05/25/00

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Category	Signal Word
Safer	Insecticide	Mites, aphids	Plants in parks and govt landscapes	2-3 times per year	36 oz	$150	$6	$156	III	Caution
Dursban	Insecticide	Cut worms	Turf areas	Twice in last 8 years	4 oz	$30	$28	$58	III	Caution
Comet Liquid	Germicide	Bacteria, germs	Sinks, toilets, countertops	Weekly	1,152 oz	$0	$350	$350	III	Caution
Neutracide	Germicide	Bacteria, germs	Floors, walls in restrooms & community bldgs	Daily	48 gal	$0	$2,323	$2,323	I	Danger

Department of Public Works
1999 Pesticide Useage
05/25/00

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Cat.	Signal Word
Rodeo	Herbicide	Aquatic weeds	Roadsides & Levees	Once or twice per yr	201 gals	$42,071	$15,617	$57,688	III	Caution
Pro-spreader	Herbicide	Aquatic weeds	Roadsides & Levees	Once or twice per yr	75 gals		$1,300	$1,300	III	Caution
Roundup Pro	Herbicide	Weeds	Roadsides & Levees	Once or twice per yr	386 gals		$14,089	$14,089	III	Caution
Diphacinone	Rodenticide	Burrowing rodents	Pajaro & Salsipuedes Levees	As needed	15 lbs	$16,404	$9	$16,413	III	Caution
Fumitoxin	Rodenticide	Burrowing rodents	Pajaro & Salsipuedes Levees	As needed	40 lbs		$400	$400	I	Danger

Note: Labor costs are consolidated for herbicides and rodenticides rather than by specific pesticide. Labor costs include equipment and Division and Department overhead.

Redevelopment Agency
1999 Pesticide Useage
05/25/00

Pesticide	Type	Target Pest	Locations Applied	Frequency of Application	Annual Quantity	Labor cost	Material cost	Total cost	EPA Cat.	Signal Word
Roundup Pro	Herbicide	Weeds/grasses	Roadways	4 times in 1999	24 oz				III	Caution
Roundup	Herbicide	Weeds/grasses	Roadways	10 times per year	1 gal		$80	$80	I	Caution
Ronstar/Chipco	Herbicide	Weeds/grasses	Roadways	4 times per year	24 lbs		$84	$84	II	Warning
Diazinon Plus	Insecticide	Insects	Roadways	4 times per year	6.5 oz	$40	$40	$80	II	Hazardo

Attachment B

Proposed Pesticide Policy

10

SANTA CRUZ COUNTY
PROPOSED PESTICIDE POLICY

I. Goals: The Santa Cruz County Board of Supervisors establishes the following goals concerning the use of pesticides by County departments on County owned property:

A. To eliminate or reduce pesticide applications on County property to the maximum extent feasible.
B. To eliminate to the maximum extent feasible the use of EPA Toxicity Class I pesticides by January 1, 2002.
C. To eliminate to the maximum extent feasible the use of EPA Toxicity Class II pesticides by January 1, 2003.
D. To provide notification of pesticide application as described in Section III below.
E. To accomplish these goals through the development and implementation of a comprehensive Integrated Pest Management plan.
F. Recommended modifications to these goals will be submitted to the Board for consideration in the 2000-01 annual IPM report.

II. Integrated Pest Management Guidelines: For all pest problems on County property, County departments will utilize the following IPM guidelines:

A. Use pest resistant plants and planting systems that minimize pest infestations
B. Perform thorough in-field assessments of each pest problem.
C. Establish injury levels and action thresholds for each individual pest species based on how much biological, aesthetic or economic damage the site can tolerate to determine when corrective action must be initiated.
D. Establish scouting or inspection procedures to monitor pest population levels and severity of the pest problem.
E. Select corrective actions using the following criteria:
   1. least disruptive of natural controls
   2. least hazardous to human health
   3. least toxic to nontarget organisms
   4. least damaging to the general environment
   5. most likely to produce permanent reduction of the pest
   6. easiest to carry out effectively
   7. most cost-effective in the short- and long-term
F. Modify pest ecosystems to reduce food and living space through physical and cultural practices and the use of biological pest controls.

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G. Maintain an accurate record-keeping system to catalogue the following:
1. the identification of the pest
2. the size or density of the pest infestation
3. the geographic distribution of the pest problem
4. complete information on how you treated the pest, including what, how much, where, when, who, cost, and any application difficulties
5. the effectiveness of treatment of solving the problem
6. any observable side effects of the treatment on nontarget organisms
7. any comments from residents

H. Recommended modifications to these guidelines will be submitted to the Board for consideration in the 2000-01 annual IPM report.

III. Notification of Pesticide Use: County departments applying Toxicity Class I, II, or III pesticides shall comply with the following notification procedures:

A. Signs shall be posted the day before the application of the pesticide and will remain posted at least four days after the application of the pesticide.

B. Posting shall only be required in areas where the public can reasonably be expected to frequent and as near as possible to the site of the application.

C. Signs shall be posted at every entry point where the pesticide is applied if it is applied in an enclosed area, and in highly visible locations around the perimeter of the area where the pesticide is applied if the pesticide is applied in an open area.

D. Signs shall be of a design that is easily recognizable to the public and workers.

E. Signs shall contain the name and active ingredient of the pesticide, the target pest, the date of pesticide use, the signal word indicating the toxicity category of the pesticide, the date for re-entry if required, and the name and contact number of the County department responsible for the application.

F. County Departments shall not be required to post signs in right-of-way locations that the general public does not use for recreation purposes. However, each department that uses pesticides in such right-of-way locations shall develop and maintain a public access telephone number which will provide the information required in Section III. E. Information shall be available from this telephone number on any pesticides which will be applied within the next four days or that have been applied within the last four days.

G. County Departments using pesticidal baits shall not be required to post notification signs. However, each department using pesticidal baits shall post a permanent sign at the facility where the baits are used. The sign shall indicate the type of baits used in the area, the target pests, the area or areas where the baits are commonly placed, and the contact number of the department responsible for the bait application.

H. Recommended modifications to these notification procedures will be submitted to the Board for consideration in the 2000-01 annual IPM report.

Iv. Training: County departments will provide training in the following areas to staff who are responsible for applying pesticides or who supervise staff who apply pesticides:

A. Principles of Integrated Pest Management
B. Toxicology of commonly used pesticides
C. General introduction to the evaluation of alternative strategic control options
D. Monitoring protocols for different pest problems, including record keeping
E. General introduction to identification of plant diseases and common pest problems procedures for developing site-specific IPM implementation plans
F. Recommended modifications to these training procedures will be submitted to the Board for consideration in the 2000-01 annual IPM report.

V. Contractors: Contractors applying pesticides to County property shall comply with the terms of this policy.

VI: Exemptions:

A. Nothing in this policy is intended to apply to pesticide applications which are required to comply with federal, state, or local laws or regulations.
B. Recommendations regarding exemptions to the pesticide ban described in Section I. B & C above will be submitted for the Board's consideration in the 2000-01 annual IPM report. Exemption recommendations will specifically address the following applications:
   1. Antimicrobial agents
   2. Pesticides used to control burrowing rodents on the Pajaro and Salsipuedes levees
   3. Other applications determined by departments or the IPM Coordinator to warrant possible exemption.
C. A recommended procedure for establishing exemptions will be submitted for the Board's consideration in the 2000-01 annual IPM report.