

Action Plan
Pesticides Program: AGR-846

Division, Branch: Plant Industry Division, Pesticides Branch

Program Objective: To ensure the efficient, effective and safe use of pesticides to minimize adverse effects on the environment, and enable the agricultural industries to continue the use of pesticides.

PRIORITY GOALS & OBJECTIVES

Departmental Objective Being Pursued: To promote the beneficial effects of agriculture on the environment and prevent or minimize its adverse impacts.

Goal 1: To reduce the number of pesticide exposures reported to the Hawaii Poison Control Center by fifty (50) percent in five (5) years.

Pesticide illnesses are not easily recognized. Symptoms are similar to flu, colds and other illnesses. The Hawaii Poison Control Center tracks pesticide exposures. It also assesses the severity of exposure, age of victims, route of exposure and action (storage or use) resulting in the exposure. In fiscal year 1999, the Poison Control Center recorded approximately one-thousand two hundred (1,200) exposures to household items, including bleach, insecticides, cleaners and disinfectants, herbicides, rodenticides, swimming pool products, toilet bowl and tile cleaners, and moth repellents. Over five hundred (500) of these exposures involved pesticides. Data to show the range of pesticide exposures will be obtained or estimated and activities to better document pesticide illnesses and to reduce the number of exposures are planned.

TIMETABLE TO ACCOMPLISH GOAL

<u>Identify Target/Task</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
1. Physicians: Seminar on the recognition and management of pesticide poisonings.		X			X
2. Household pesticide users: Development or review of outreach materials	X				X
3. Household pesticide users: Implement education program for household pesticide users.	X	X	X	X	X
4. Agricultural employers: Conduct training and inspection activities to protect agricultural workers from pesticide poisonings.	X	X	X	X	X
5. Household pesticide users: Develop community service announcements on preventing pesticide exposures.	X				

<u>Identify Target/Task</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
6. Commercial users of pesticides: Develop curriculum and training program for new employees on pesticide hazards.		X			
7. Commercial users of pesticides: Conduct training for new employees about pesticide hazards.	X		X	X	X

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Goal 2: To demonstrate agricultural remediation of persistent organic pollutants and toxic metals. To facilitate commercial applications and regulatory agency acceptance of agricultural remediation technologies.

Persistent organic pollutants and toxic metals used from the mid-to-late 1900's persist in the environment and create a toxic legacy. Toxic pollutants in Hawaii include chrome, arsenic and pentachlorophenol from treating wood; pentachlorophenol and other phenols from early sugar herbicides; dibromochloropropane and ethylene dibromide from pineapple nematode control; chlordane, heptachlor, aldrin and dieldrin from prophylactic treatments for termites; mercury from treating sugarcane seed pieces to prevent rot; trichloroethylene from solvent uses by the military and others; polychlorinated biphenyls from use in transformers, capacitors and other electrical equipment; and metals in incinerator ash.

Methods to reduce levels of chemicals of concern in the environment involving physical destruction of the chemical are expensive and the method may generate by-products that are undesirable. For example, incinerating will generate carbon dioxide and sterilize soils so that nothing will grow. There are also no approved hazardous waste treatment facilities in Hawaii and any waste must be transported elsewhere for treatment and disposal.

Biological systems have demonstrated some promise in degrading toxic pollutants to less harmful substances. Beginning in 1998, Senator Inouye included funds in the budget for the U.S. Environmental Protection Agency to demonstrate applications of degrading toxic substances to regulators and potential commercial interests. The goal of this project is to facilitate the development of an industry that is mobile with the biological tools to mitigate a variety of chemicals and metals.

TIMETABLE TO ACCOMPLISH GOAL

<u>Identify Target/Task</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
1. Issue Request for Proposals to set up tests demonstrating commercial feasibility of degrading toxic wastes with agricultural applications.					X

<u>Identify Target/Task</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
2. Field demonstration of successful applications		X			
3. Develop field manual for successful applications			X		
4. Identify other toxic pollutants that have a high probability of success to be degraded by agricultural applications.					X