

Race, Poverty & the Environment

A newsletter for social and environmental justice

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Pesticides and the Poor in California

By Luke Cole and Susan Senger Bowyer

The use of toxic pesticides is a worldwide problem, presenting consumers, rural residents and farmworkers with a variety of dangers. Globally and in California, poor people have the greatest exposure to pesticides, at work and in their communities. The primary victims of pesticides are farmworkers, among the poorest Californians. Those communities facing pesticide contamination of their air, soil and water are largely lower-income rural towns with a high proportion of farmworkers. And while pesticide residues potentially affect all consumers, people in poverty are the most vulnerable to pesticide-related diseases because of poor access to health care and poor nutrition.

The people who use and produce pesticides, agriculture and petrochemical companies, are among the most politically and economically powerful interests in California, while many pesticide victims live in poverty, are people of color, and are relatively powerless. Because of this inequality, government agencies do not regulate pesticides to fully protect farmworkers and the public: despite their manifold dangers, pesticides are under-regulated, and where laws exist, they are largely unenforced.

Nationwide, of the 1.1 billion pounds of pesticide active ingredients used annually, the EPA reports that more than three-quarters — or 845 million pounds — is used in agriculture. California officials estimate that between 20 and 50

percent of all pesticides used in the U.S. are used in California — about one-tenth to one quarter of the pesticides used each year in the entire world.

Experimenting on California

Pesticides threaten rural Californians on two fronts: where they work, and where they live. Farmworkers bear the brunt of occupational exposure, while rural communities near the fields are victims of airborne chemicals and contaminated drinking water.

Farmworkers face the most serious and immediate problems with pesticides. A recent survey, *Agricultural Workers in Central California*, found more workers concerned about pesticide exposure than about any other of the many problems they must cope with. Agricultural workers have among the most hazardous work in the state, and the highest rate of occupational illness of any major sector of the economy,

>> see FARMWORKERS, page 17

Special Issue On Pesticides

- Farmworkers Fight Back
- Alternatives in Agriculture
- Organizing Strategies
- Resources

"The last species to discover water are the fish."

-- Ralph Santiago Abascal, of California Rural Legal Assistance, on the importance of environmental issues to people of color.

Editors' Notes

Urban Pesticides?

People who live in cities -- especially people of color -- should pay attention to the struggle of farmworkers against pesticides. Many African Americans, Asian Americans and Latinos -- including some comfortably in the urban middle class -- are only one generation away from rural poverty themselves. They should easily understand the importance of joining with farmworkers to secure decent environmental conditions in which to live and work.

The idea that pesticides are solely a rural problem needs to be re-examined. Contrary to popular opinion, pesticides directly affect urban residents — especially poor people and people of color. The use of pesticides does not begin and end in the agricultural field. For example, in Richmond, California, a largely African-American urban area, the community lives in the shadow of Chevron's massive oil refinery and pesticide manufacturing plant. Many of Richmond's residents live in poverty. Workers in the Chevron plant face exposure to a variety of hazardous chemicals on the job each day. Neighbors of the pesticide plant complain of constant odors, as well as respiratory illnesses and other pollution-caused diseases. Whatever pollutants don't

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Editors' Notes,
continued from page 1

go up the stack are taken to a toxic waste dump, often Chem Waste's Kettleman City facility, in a low-income Latino community in California's Central Valley. The pesticides produced are shipped around the country, where farmworkers face dangerous exposures.

Urban residents face other problems with pesticides. Pesticides poison our foods. Residents of housing projects which are routinely fumigated with dangerous pesticides, and children who play on lawns recently treated with pesticides are some of pesticides' many victims. Pesticide use is often more concentrated in urban areas, with household and garden users applying more pesticides per square inch to their living spaces, with less information about the chemicals they are using, than agricultural users in rural areas.

▪ • ▪

Many in the mainstream environmental movement see the Natural

Resources Defense Council's successful campaign to get the pesticide Alar off the market as a victory. We in the movement for environmental justice need to look at what "victory" means. In the backlash against the Alar scare, it has become *more* difficult to get harmful pesticide off the market — *witness* the defeat of the Big Green environmental initiative in California last fall. And farmworkers, had they been asked, probably would not have picked Alar as the single pesticide to get rid of, had they to choose just one. Had they been consulted, they probably would have chosen parathion, a pesticide responsible for more deaths worldwide than any other agricultural chemical.

"Victory" for the mainstream environmental movement was removing **Alar** from the market — and that surely is a positive development. But if one talks with the apple workers from Washington state, one will **find** out that there are still a dozen other dangerous pesticides being used today on apples (*see* page 20). We need victories like Alar, but we also need victories that

include and empower those most affected by the pesticides themselves, farmworkers.

At the California Communities Against Toxics conference held in Kettleman City last April, about forty-five farmworkers were in attendance, mostly locals attracted to the event by the organizing efforts of the community group El Pueblo para el Aire y Agua Limpio. Two spokespeople from a major urban anti-pesticide group in Los Angeles breezed in on the second day of the conference, and gave an impassioned speech about the dangers of spraying malathion on Los Angeles to control the Medfly. Through an

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Race, Poverty & the Environment

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The Potential for Alternative Agriculture to Reduce Pesticide Use

The need for pesticides in our nation's farming community is a source of great debate. Jennifer Curtis, Research Associate with the Natural Resources Defense Council, has written a comprehensive analysis of alternatives of the use of agricultural chemicals. The following article is excerpted from her new book, Harvest of Hope: The Potential for Alternative Agriculture to Reduce Pesticide Use.

Agriculture is vital to the American economy. Production, sale, and processing of food and fiber constitute 17 percent of the United States' gross national product. Dramatic increases in agricultural productivity have occurred as a result of applications of pesticides and fertilizers, high-yielding crop varieties, and irrigation. The use of nitrogen fertilizers has increased almost three-fold since the 1960s. Similarly, pesticides applied to major crops such as cotton, corn, rice, soybeans, and wheat increased 175 percent between 1964 and 1982.

While increasing the abundance and diversity of our food supply, the widespread use of agricultural chemicals has not occurred without serious environmental, social, and economic costs. During the past decade, the public has focused much of its attention on the issue of pesticides in food. Yet environmental contamination by agricultural chemicals, particularly of ground and surface water supplies, may be a more serious and pervasive problem in the long term.

Recent results of the U.S. Environmental Protection Agency's (EPA) National Pesticide Survey indicate that nitrate is one of the most common contaminants of groundwater and is present in 52 to 57 percent of community and private wells nationwide. The survey also estimates that ten percent of community wells and four percent of rural domestic wells contain at least one pesticide, resulting in at least 1.3 million people drinking from contaminated wells. Another EPA database indicates that a total of 46 different pesticides have been detected in the groundwater of 26 different states as a result of normal agricultural use. Once contaminated, it is often technically and economically infeasible to restore groundwater to its original condition. The U.S. Department of Agriculture's (USDA) Economic Research Service estimates that first-time monitoring costs, the first step in remediation, of private and community wells for pesticides and nitrate in potentially contaminated areas would exceed \$1.4 billion.

Surface waters can also be contaminated with nitrate and pesticides. A 1989 survey by the U.S. Geological Survey

Harvest of Hope

by Jennifer Curtis

detected herbicides in 90 percent of streams in ten midwestern states after agricultural applications. The Iowa Department of Natural Resources tested surface waters and found that 90 percent of the samples contained pesticide residues even after drinking water treatment. Eighty-two percent of the supplies tested contained multiple pesticide residues.

Pesticides have also been detected in rainwater and fog. Since 1987, a total of ten herbicides and four insecticides have been routinely detected in Iowa rainwater. Recent monitoring has found residues of four organophosphate insecticides in winter fog in California's Central Valley.

A variety of federal statutes have been enacted in the past two decades to protect and enhance the quality of water resources. The Clean Water Act requires general water pollution controls. The quality of drinking water is specifically addressed in the Safe Drinking Water Act. The Resource Conservation and Recovery Act establishes requirements

for the treatment, storage, and disposal of hazardous wastes. The Comprehensive Environmental Response and Liability Act, or Superfund, authorizes the federal government to clean up contamination caused by inactive waste disposal sites or spills, and imposes strict liability for cleanup on private companies whose past disposal practices have resulted in environmental contamination. Many states also have laws to protect water quality. Unfortunately, both federal and state laws have generally failed to adequately address agriculture's role in water quality degradation. Furthermore, the Federal Insecticide, Fungicide, and Rodenticide Act, the fundamental federal law that regulates the sale and use of pesticides, does not specifically address pesticide pollution of water supplies.

Despite these numerous laws, widespread and significant agricultural contamination of ground and surface waters continues with potentially serious consequences for public

The lack of national leadership to protect water resources from agricultural nonpoint source pollution, combined with the additional threats pesticides pose to the environment and public health, provides a strong argument for reducing the use of agricultural chemicals.

"It has been activists, workers and consumers who have brought public awareness to the problems of pesticides and have forced solutions," says long-time pesticide activist Elizabeth Martin. "The government will never act against the interests of the growers or the chemical industry unless it is forced to." Below are Martin's organizing tips...

The Dos and Don'ts of Fighting Pesticides

• **DO know the facts.** Research the pesticide problem in the area. Contact local agencies such as the health department and the agricultural commissioner's office to learn what data they have, and go into the office to review their information. Ask there about state or federal reports about your issue. State and municipal agencies are often required to give citizens access to their information under state Public Records Acts, and the federal government must do the same under the Freedom of Information Act (FOIA).

• **DON'T make up information or guess.** If the problem is not well documented, or information has not yet been reviewed, don't make up numbers or facts just to give more dimension to the problem. If any of these facts or guesses are proven later to be wrong, credibility is almost impossible to recapture. When there isn't data on the problem, the first demand of the organizing campaign can be "test/monitor/study" the problem.

• **DO hold community meetings.** Publicize the meeting by taking leaflets door to door in the affected community, or by having the meeting announced in the newspaper or on the radio. Try to have at least one person with knowledge of the subject make a short speech (just to break the ice and get peoples' minds working), then open the meeting to let people share their experiences and develop strategies for action.

• **DON'T be a Lone Ranger.** What causes change at the local, state and

federal level is rarely reasoned fact — usually political power is the fastest path to solutions. Working in isolation makes it difficult to involve enough people to do the research, go to meetings, talk to the media, and do other tasks necessary to win. Also, any work of this nature can be expensive,

public event to which the media is invited, make sure someone with good information is assigned to respond to the media.

• **DO find the appropriate decision arena for the fight.** Part of the research should be to locate where the decisions are being made that affect

your issue. Time can be wasted in going to agencies that have no power over your problem. When you find the right "decision arena," go in with clear and concise demands.

• **DON'T be used by politicians.** Toxics issues make great campaign stories — but the politician can

disappear once he or she is re-elected. Don't just let the politician come to your group, make a vague speech and get pictures taken holding sick children.

• **DO seek the help of professionals.** When necessary, a lawyer or scientist can make a great technical contribution to your effort. Their credibility and knowledge should be one of the tools in your campaign.

• **DON'T hire a professional and go to sleep.** Often professionals, such as attorneys, discourage citizens from being active once they are hired, or begin to talk in such technical jargon that community activists get confused or feel stupid. Remember who is the boss — your community group should be telling the professionals what to do, and not the other way around. Remember that only the people actually living in the community at risk have their lives at stake — and keep involved to ensure that every possible strategy to protect your community is employed.

Pesticide problems may take a long time to solve. Using the best information, and involving a lot of people is not only a good way to win, it helps people to keep a long struggle going over many years. The chemical industry has thousands of attorneys and scientists working for them. To change the toxics problem, it will take thousands of activists working over many years.

Organizing for a Change

by Elizabeth Martin

The DOs and DON'Ts of Fighting Pesticides

involving long distance phone calls to government agencies, gas to attend distant meetings, and costs to buy reports or copy data. Many community activists trying to fight pesticides or other toxics alone have run up thousands of dollars of expenses in fighting an issue, and had to quit.

• **DO network.** Locate regional, state or national organizations with expertise on the problem affecting your community, and solicit their information, resources and support.

• **DON'T re-invent the wheel.** Communities now have over 25 years of collective wisdom gained from fighting pesticide problems. There is no time to waste trying strategies that don't work. The quickest way to learn how to approach a problem is contacting others who have been at it a long time.

• **DO talk to the media.** After learning the facts about the problem, set up a meeting with local newspaper, radio/TV reporters to discuss the problem and publicize the concerns of the community. Learn who covers the environmental "beat" and cultivate a relationship with him or her.

• **DON'T let the media define the issues.** Make sure that interviews with the media are conducted by the most articulate and knowledgeable people in the group, and don't get dragged into topics that are unrelated. If there is a

For a long time now, the name of Rachel Carson has been synonymous with the environmental movement. Many times I have heard that *Silent Spring*, her 1962 classic, was the fuse that triggered the explosion culminating in the current wave of environmental activism, and should be counted among the few books that have actually altered the course of history. I have even echoed its praise to my friends. But until recently, I had never actually taken the time to pick up and read the book. I hadn't a clue, really, of what exactly Carson had done to change the world, or whether she had acted deliberately to have such impact or stumbled accidentally into her place in history.

I recommend that anyone who has an interest in issues of science, agriculture, writing, feminism, politics, environmentalism or social justice read *Silent Spring*. If, as I did, you assume that a book published 28 years ago must by necessity have a dated feel to it or be in many ways factually obsolete, you can expect a big surprise. If, as I did, you also believe that second-hand

world of pesticide theory. Carson's theory isn't a dry read because she never allows it to become separate from the passions of the web of life, the assault on which she so eloquently chronicles.

Second, it is not just a cliché to say that *Silent Spring*, her last work, is the single most formative influence on the modern environmental movement, and perhaps the Environmental Protection Agency, which was established in 1970 in remarkable accord with recommendations prescribed by Carson in her 1963 testimony before the U.S. Congress. As we proceed into the current Decade of the Environment, it would be a shame to do so without a clear knowledge of the woman and the book that made "environment" a household word.

Third, *Silent Spring* is truly a paradigmatic work. It focuses explicitly on the dangers of chlorinated fluorocarbons and organic phosphates, and other "biocides" (a term that Carson prefers to "pesticides" because it more honestly points to the indiscriminate death-dealing nature of these poisons), but it does much more. With relentless force, it lays bare the way of thinking that has given us nuclear arms proliferation and the so-called "peaceful atom," as in Three Mile Island, Chernobyl and the recently disclosed Hanford (Washington) disaster. She makes plain the connections between the

Rachel Carson Remembered

Twenty-six years after her death, Rachel Carson continues to be remembered as the woman who pioneered the way of the modern environmental movement.

by Victor Lewis

re-ports of Carson's achievements can provide you with all you need to know about her, please reconsider. Carson's work deserves to be known directly.

First, Rachel Carson's writing smoulders with passion, and sings with poetic beauty, while revealing a highly trained and disciplined scientific mind. *Silent Spring*, her searing indictment of our rampant misuse of agricultural pesticides, is a very good book. The reader will enjoy the experience, while at the same time receive a solid but painless initiation into the

demented love affair of corporate power with the chemical insect controls and the now-confirmed tragedy of its current obsession with nuclear power. Carson reveals the way of thinking that brought us Love Canal, the Bhopal disaster, the Thalidomide horror and even the Dalkon shield. Although she died in 1964, having witnessed only the first vibrations of the chord she struck in the soul of her generation, her vision illuminates the conditions of the 1990s as clearly as if she now stood amongst us in the flesh.

Fourth, *Silent Spring* is, at least implicitly, a feminist work. The indignant and life-loving denunciation of the outrages of patriarchy that characterizes the best feminist theory permeates every page of Carson's book. If she had lived to see it, Carson would have undoubtedly found a home within the modern feminist movement that emerged within a few years of her death. In *The Recurring Silent Spring*, a tribute to Carson, Patricia Hynes brings to light the hardship that went along with being a woman scientist in Carson's day, not to mention the present, and further illuminates the virulent sexism that characterized the agribusiness smear campaign against Carson. Her enemies had no factual grounds to attack the integrity of

>> see RACHEL CARSON, page 14

REPORTBACK...

Building a Movement for Labor and Environmental Justice, Syracuse, NY, November 16-18, 1990.

Environmentalists and Labor Face Common Pesticide Reform Needs

Hundreds of labor union representatives and environmental activists made common cause and gathered for a second, impressive "Building a Movement for Labor and Environmental Justice" conference in Syracuse, NY, on November 16-18, 1990. Attended by over 300 activists, the conference focused on current campaigns, successful tactics, recent victories, and lessons being learned (sometimes painfully).

Introductions among those attending one pesticide workshop testified to the fact that pesticide trespass is everywhere in our society, and that we have common goals. Those attending the workshop included:

- labor representatives in transportation (who drive in buses after they have been treated with pesticide bombs), food processing (who open and clean railroad cars carrying fumigated grains), and agriculture (whose families are exposed to pesticides in their field worksites, nearby homes, and water);
- government representatives, including staffers from the state Senate working on pesticide contamination of indoor air and groundwater, and from the state Attorney General's office working on consumer and worker exposure to pesticides;
- citizens who have been challenging aerial spraying against mosquitoes, addition of pesticides to lakes against aquatic plants, school pesticide applications, pesticides in food and neighborhood lawn treatments; and
- organic farmers, who are trying to make a living in an agricultural system geared to pesticides.

It was clear to all attending that moving our pesticide-dependent society

toward more environmentally sound practices may be *furthered* by adopting tactics suggested by workshop presenters, but will be *assured* if we work with those whom we hear speaking up across the aisle.

For more information, contact New York Coalition for Alternatives to Pesticides (NYCAP), 33 Central Avenue, Albany, NY 112210. 518/426-8246.

— Mary O'Brien

Environmental Law Alliance Worldwide
Eugene, OR

U.S. Environmental Film Festival, Santa Monica, CA, April 25-28, 1991

Environmental Media and People of Color

Mainstream environmental media, particularly television, film, and video, is not accurately depicting the perspectives, issues or involvement of people of color in the movement. In American society, where these visual media are the primary information source for many, the environmental movement must be depicted as a multi-cultural, multi-class movement in order to adequately inform and motivate increasing numbers of people from all sectors of our society to become involved.

To promote the broader inclusion of people of color in environmental media, The Video Project, a non-profit distributor of environmental films and videos, coordinated a panel discussion and workshop which took place at the U.S. Environmental Film Festival, April 25-28, 1991 in Santa Monica, CA.

The panel discussion was titled "Out of Focus: Environmental Media and

People of Color" and panelists included: Carl Anthony, Director of the Urban Habitat Program, Richard Moore, Co-Director of the Southwest Organizing Project, Native American filmmaker Robby Romero, Running-Grass, founder of Three Circles Center for Multi-Cultural Environmental Education, and Richie Havens, singer/songwriter and founder of The Natural Guard program. Jeff Cohen, Executive Director of Fairness and Accuracy in Reporting, moderated the panel.

Before an audience of approximately 75 people (including media professionals, film students and the general public), panelists discussed how and why environmental racism prevails in the media. They challenged media professionals to investigate the issues and involvement of people of color, and encouraged them to relate these stories in a way that enables the people involved to speak for themselves.

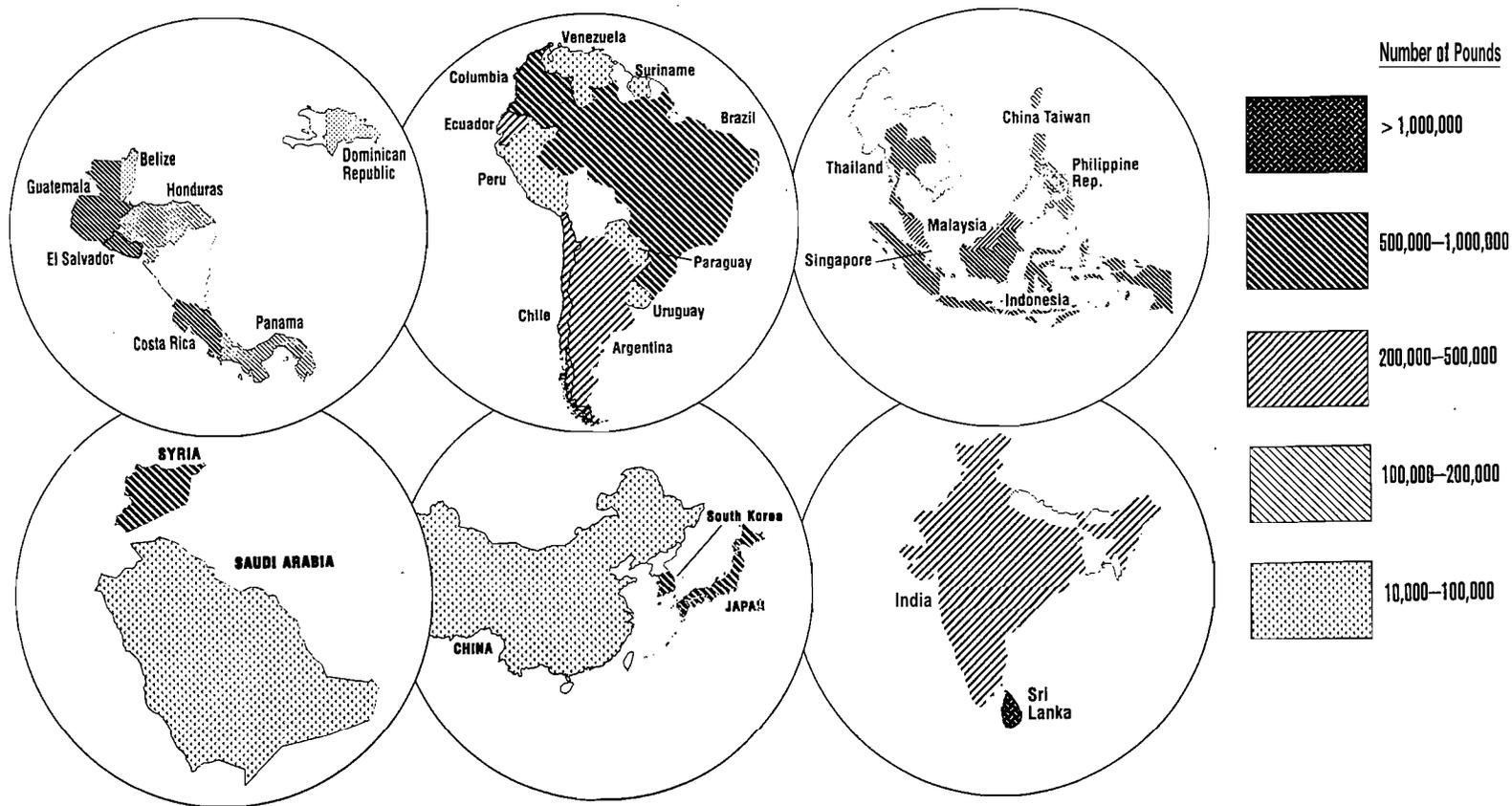
The environmental movement must be depicted as a multi-cultural, multi-class movement in order to adequately inform and motivate increasing numbers of people from all sectors of our society to become involved.

A technical assistance workshop entitled In Living Color was also provided for media producers involved or interested in incorporating multi-cultural perspectives into environmental productions. Participants (approximately 25 in attendance) identified what they considered to be the most significant barriers to producing multi-cultural environmental programs, including lack of funding, insufficient networking between media people and multi-cultural environmental groups, and the stereotype that people of color are only involved in "negative" stories (toxic waste, pesticides, lead poisoning).

>> see MEDIA, page 7

The Circle of Poison

Countries of Destination, Hazardous Pesticide Shipments from the U.S., March-May 1990



From the excellent report *Exporting Banned and Hazardous Pesticides*, by the Foundation for Advancements in Science and Education (FASE) (*see Resources*).

U.S. Customs records obtained by FASE researchers indicate that between March and May 1990, pesticides which are suspected to cause cancer, mutagenesis and adverse reproductive effects were exported at a rate of at least three tons each hour.

This chart includes pesticides which in the U.S. are canceled, restricted use, unregistered, Class I or suspected to be carcinogens, mutagens or damaging to the reproductive system.

Resources

Pesticide-Related . . .

Newsletters and Magazines

California Certified Organic Farmers Statewide Newsletter. A quarterly newsletter aimed at keeping organic farmers up to date on the latest laws, growing techniques, research and news to help them grow produce without the use of synthetic pesticides. Available with membership in CCOF of \$25/year for individuals or \$40/year for businesses. CCOF, Box 8136, Santa Cruz, CA 95061.

Farmworker Justice News. The quarterly newsletter of the Farmworker Justice Fund, with articles on legal, health, and environmental developments as they affect farmworkers. See especially the Summer 1990 issue, a special report on pesticides, which includes excellent articles on farmworkers and the health risks of pesticides, developments in pesticide laws as they affect farmworkers, and new strategies used by farmworker support groups to combat pesticides. Farmworker Justice Fund, 2001 S Street, NW, Suite 210, Washington, DC 20009.

Global Pesticide Campaigner. A quarterly, thematic journal, featuring news and analysis of international pesticide problems and alternatives, with a focus on citizen action. Recent issues have focused on biotechnology and GATT. *Global Pesticide Campaigner* is free to PAN NA RC affiliates, and available for \$25/year for individuals and organizations, \$15/year for low-income individuals, \$50/year for government agencies and libraries, and \$100/year for corporations. PAN, 965 Mission Street, Suite 514, San Francisco, CA 94103, 415/541-9140, fax 415/541-9253.

Journal of Pesticide Reform. Published quarterly by the Northwest Coalition for Alternatives to Pesticides, the *JPR* is a mix of scholarly and activist articles which focuses on one pesticide topic per issue -- for example, drift, or risk assessment -- and collects a series of excellent articles around that topic. Definitely worth the \$15/year, from NCAP, PO Box 1393, Eugene, OR 97440.

PANNA Outlook. A bimonthly bulletin from the Pesticide Action Network North American Regional Center (PAN NA RC), this four-page newsletter is chock full of pesticide-related news and action alerts of interest to pesticide activists around the world. Its focus is on major policy events, tracking certain pesticides, and news on international developments. Useful "What you can do" sections to most articles. The *Outlook* is free to PAN NA RC affiliates, or available for \$15/year from PAN, 965 Mission Street, Suite 514, San Francisco, CA 94103, 415/541-9140, fax 415/541-9253.

Pesticides and You. Published by the National Coalition Against the Misuse of Pesticides, *Pesticides and You* is a monthly 8-page newsletter full of news on citizens' and workers' battles to reduce pesticide use and exposure. Primary focus is on residential poisonings. Information on lawsuits from around the country, regulatory action, and a "Chemical Watch" column which examines several pesticides in depth each month. Free with NCAMP membership, or \$20 for individual subscription. NCAMP, 701 E Street, SE, Washington, DC 20003.

Articles, Reports and Bibliographies

Exporting Banned and Hazardous Pesticides, by the Foundation for Advancements in Science and Education, is a **hardhitting, well-**documented look at the export by U.S. companies of pesticides banned in the United States to other countries, mainly in the Third World. Excellent graphics show the total pounds exported in a three month period in 1990 by countries of destination. The eight-page report is available from FASE, Park Mile Plaza, 4801 Wilshire Boulevard, Los Angeles, CA 90010. (see also pages 8-9)

Least-Toxic Pest Management Publications Catalogue. A compendium of resources for those interested in moving away from chemically-dependent pest control. Includes sources on home pests, garden pests, agriculture, integrated pest management, and more. A handy way to find out about the hundreds of publications available on real, practical alternatives to pesticides. From the Bio-Integral Resource Center, PO Box 7414, Berkeley, CA 94707. 415/524-2567; fax 415/524-1758.

Pesticides and Regulation: The Myth of Safety. This 42-page book by pesticide expert Bruce Jennings debunks 14 common myths about pesticides and pesticide regulation, including "Aren't pesticides specifically screened to protect children?" and "Aren't pesticides reviewed for safety?" Easy-to-use, accessible information for the activist. Available for \$4.00 from Senate Reprographics, 1100 J Street, Suite B-10, Sacramento, CA 95814 (California residents add sales tax; checks payable to State of California).

Percolating Pesticides. A report detailing the California Department of Food and Agriculture's failure to implement California's strong groundwater protection laws. Available from Pesticide Watch, 1129 State St, Suite A, Santa Barbara, CA 93101.

Reducing the Use of Pesticides in Agriculture: A Farmer's Perspective, by Farmers for Alternative Agriculture Research. This 12 page report presents priorities for spending public monies earmarked for research into alternatives to synthetic pesticides, with a vision by farmers of a more ecologically and socially responsible agriculture which remains economically viable for farm families. Available from California Action Network. PO Box 464, Davis, CA 95617.

In listing resources for this issue of RPE, we faced a dilemma: we have literally file cabinets full of good resources on pesticides, a subject which CRLA has worked on for the past 25 years. Those listed here are 1) the newsletters of important groups working on the issue, and 2) interesting recent resources that we have come across.

General Interest . . .

Magazines and Newsletters

Global Warming Watch. Subtitled "Climate Change and the World Economy from a Trade Union Perspective," this new newsletter from the Oil, Chemical and Atomic Workers is designed to provide trade unionists and their friends with an accessible guide to the debate about global warming. We've seen the second issue, and it's great — filled with facts and figures. Available for \$12/year from Public Health Institute, OCAW, 853 Broadway Room 2014, New York, NY 10003. 212/674-3322, fax 212/353-1203.

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The resource people for this workshop were Shauna Garr, producer of Power to **Survive**, Karen Hirsch a producer with Greenpeace, USA, and Kevin Duggan, formerly of Media Network. These key people showed film clips and provided solid funding, production and networking information.

To encourage and facilitate networking between media professionals and environmental groups, The Video Project has compiled "Shades of Green," a national resource guide of multi-cultural environmental media. It lists many environmental video and film programs that are focused on the United States and involve people of color. The Video Project will also make available a video tape and edited transcript of the panel discussion which took place at the U.S. Environmental Film Festival.

-- **Dianne Saunders**

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Oakland, CA 94618
415/655-9050.

People's Earth Day 1991, San Francisco, CA,
April 27, 1991

Community Earth Day

This year Earth Day was celebrated for the first time in the heart of **Bayview/Hunters Point**, a predominantly African-American community in **San Francisco**. The celebration resulted from a conversation between Sam Murray, a prominent **Bayview/Hunters Point** leader, and some environmental and peace activists. He asked them to help solve environmental problems threatening people's health in **Bayview/Hunters Point**. They suggested an Earth Day celebration as a beginning. The community liked the idea so long as the event showed the good things about living in **Bayview/Hunters Point** as well as focusing on its environmental problems. Everyone agreed that it should be called a People's Earth Day

to reflect the feeling that it is a **Bayview/Hunters Point** celebration, and over forty groups banded together to plan a day of speeches, entertainment, environmental information and good food from local merchants.

For good reason, the speeches that day focused on race, poverty and the environment. **Bayview/Hunters Point** has one of the highest levels of home ownership and long-term residency in **San Francisco**. Yet it is the location of choice for City agencies and businesses using toxic materials and generating toxic wastes in their operations.

The City's massive southeast sewage treatment plant operates within a few blocks of where the celebration was held. Odors from it have plagued the community for years.

Hunter's Point Naval Shipyards is the worst toxic waste contamination site in **San Francisco**. Congress recently passed a law requiring that the Navy lease one half of the base to the City for 30 years before the end of this year. If developed properly, that land could provide jobs and hope for the community. Unfortunately, most of the base is so badly polluted with toxic wastes that the Navy won't have it cleaned up for years.

Bayview/Hunters Point is a mixed industrial, commercial and residential area, with homes right next door to businesses. Many companies use toxic chemicals and generate toxic wastes in their operations. Few have complied with environmental laws requiring them

to store, handle, use and properly dispose of those toxic chemicals and wastes. These environmental laws are meant to protect people's health, especially the health of children. But they get little protection now.

Everyone agreed that it should be called a People's Earth Day to reflect the feeling that it is a **Bayview/Hunters Point** celebration. For good reason, the speeches that day focused on race, poverty and the environment. **Bayview/Hunters Point** is the location of choice for City agencies and businesses using toxic materials and generating toxic wastes in their operations.

Most of the homes in **Bayview/Hunters Point** are covered with lead paint. Some young children are being poisoned by that lead and may be suffering serious and permanent disabilities. Lead poisoning stunts their growth, interferes with their ability to learn, and can cause serious behavioral problems. Major public and private efforts are needed to deal with this problem. Little is being done now.

People's Earth Day is not a one-day affair. The environmental groups and others intend to remain active in the community and help resolve these serious environmental problems. People living in **Bayview/Hunters Point** don't deserve to suffer from unhealthy, unsafe conditions anymore than do people living in more affluent neighborhoods. **Bayview/Hunters Point** and other communities in **San Francisco** suffering from similar conditions deserve much better from city government and from all **San Franciscans**.

-- **Neil Gendel**

Consumer Action Toxics Project
116 New Montgomery, Suite 233
San Francisco, CA 94105
415/777-9648

<< from EDITORS' NOTES, page 2

interpreter, the farmworkers listened to the speech, nodding in sympathy with the plight of the well-to-do urban residents. When the activists were done, the farmworkers were ready to talk about solutions — from the perspective of people who work, day in and day out, in fields where they are exposed to pesticide residues. They were about to speak, when they noticed that the urbanites had left, having made their pitch for support of anti-malathion efforts. The farmworkers shrugged, and another golden opportunity for building bridges was lost.

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This issue of RPE focuses primarily on pesticides. The effects of pesticides on California's rural poor, and farm-worker campaigns to halt pesticide use, are detailed. Another article describes the international "circle of poison," including an action plan and a chart detailing exports from the U.S. of pesticides banned here. Victor Lewis opines that Rachel Carson would have profited from interaction with pesticides' human victims, the farmworkers.

Is all the news bad? We don't think so. There is great potential for immediate reduction in the amount of pesticides used in agriculture, as shown on page three. And community-based struggles against pesticides continue to win victories across the country; we offer you organizing around pesticide poisonings in your community (incidentally, these organizing tips hold true for community organizing of all sorts).

And there are non-pesticide pieces, too... Dennis Martinez adds a powerful Letter to Environmentalists from an Indian perspective, calling for unity among all peoples against those who would degrade our common environment. Our Resources section is chock-full of interesting items. And three Reportbacks round out our issue.

As always, RPE depends on you, our readers — the only way we know what is going on out there is when you tell us. For environmental justice —


Mike Cole

Pesticide Action Network • Action Alert

Help Break the Circle of Poison!

Millions of pounds of banned, unregistered and restricted pesticides are exported from the U.S. every year, threatening workers, consumers and the environment worldwide. This "Circle of Poison" subjects citizens and the environment, primarily in the Third World, to a dangerous double standard during pesticide transport, use and disposal. The circle is completed when pesticide residues come back to haunt us on food we import from other countries.

In April, the "Circle of Poison Prevention Act of 1991" was introduced by Senator Patrick Leahy (D-VT) in the U.S. Senate and by Representatives Mike Synar (D-OK) and Leon Panetta (D-CA) in the House. This bill provides an historic opportunity to place strict controls on exports of hazardous chemicals. Last year, similar legislation passed both houses of Congress, with the support of 67 national and international consumer, environmental, farming, labor and religious organizations, only to die in conference committee. With each new shipment of pesticides from the U.S. to other countries, it becomes more critical that we are successful in 1991.

In brief, the "Circle of Poison Prevention Act" would:

- Prohibit the export of pesticides that are not registered for domestic use or do not have a food tolerance; are not registered for food use and would be exported for use on food; or have had the majority of registrations (by volume) cancelled.

- Permit governments to refuse the import of "particularly hazardous" pesticides including restricted-use pesticides, and those which are conditionally registered or are the subject of cancellation proceedings.

- Permit citizens to file suit against violators to enforce the law.

Automatically revoke tolerances for pesticide residues on food for pesticides no longer registered in the U.S.

- Require EPA to disseminate information on non-chemical pest control alternatives and sponsor meetings to develop improved strategies for sustainable agriculture, including integrated pest management and the use of non-chemical alternatives.

What You Can Do

Your help is needed now to ensure that U.S. exports of dangerous pesticides will finally be controlled. Join the growing coalition of individuals and citizens' groups supporting "Circle of Poison" legislation. Urge your elected representatives to support a strong pesticide export control bill, with special attention to these points:

- Stop the export of pesticides not allowed to be used in the U.S.;
- Establish a clear enforcement mechanism, with a strong citizen suit provision; and
- Provide all countries which import U.S. pesticides with notice of pending shipments under strict "prior informed consent" standards, including regulatory status of the pesticide, information on toxicologically significant "inert" ingredients and on non-chemical alternative methods of pest control.

Calls and letters to your Senators and representatives are crucial at this point: U.S. House of Representatives, Washington, DC 20515, 2021225-3121; U.S. Senate, Washington, DC 20510, 2021224-3121.

For more information contact Sandra Marquardt, Greenpeace, 1436 U St, NW Washington, DC 20009, 2021319-2472, or Pesticide Action Network, North American Regional Center, 965 Mission Street #514, San Francisco, CA 94103, 415/541-9140.

New World Times, a magazine "dedicated to the renaissance of the Indian." The Winter 1990 issue includes interviews with Hawaiian activist Kayaipuna Prejean and singer/activist Floyd Westerman, a section of seven articles of human rights abuse in Guatemala, and several pieces on Native American struggles to preserve their lands and environments. Contact *New World Times*, 625 Ashbury Street #14, San Francisco, CA 94117, 415/864-0487, fax 415/864-0455.

Third World Resurgence, a monthly magazine aimed at providing a Third World perspective to the whole range of issues confronting the Third World, such as the environment, health and basic needs, international affairs, politics, economics and culture. The November 1990 issue, for example, was centered around the GATT talks and their threat to Third World sovereignty, and included articles on India's environmental policy, US burning of chemical weapons in the Pacific, and how changes in Eastern Europe affect the Third World environment, among many others. Published out of Penang, Malaysia, *Third World Resurgence* is available for \$20/year from Michelle Syverson and Associates, 1442A Walnut Street, Suite 81, Berkeley, CA 94709.

Articles, Reports and Bibliographies

"An Interview with Dana A. Alston of the Panos Institute," *The ZPG Reporter* (April 1991). Ms. Alston responds to questions about environmental justice and how population issues are a part of the larger question. Available from: Zero Population Growth, Inc., 1400 Sixteenth St., NW, Washington, DC 20036, 202/332-2200.

"A White 'Green' Movement," by Carla Atkinson, *Public Citizen Magazine* (September/October 1990). p. 16-20. An examination of the whiteness of the green movement, and a broad overview of the impact of environmental hazards on people of color.

Community Environmental Business Opportunities, is a compilation of environmental and energy conservation ventures nationwide which give examples of "eco-entrepreneurship" in areas such as recycling and food production. Available from Center for Neighborhood Technology, 2125 W. North Ave., Chicago, IL 60647. \$12.00 for postage and handling.

"Environmental Racism: The Roots of Conflict and Growth" by Jennifer Merrill, *The ZPG Reporter* (April 1991). An examination of the source of conflict between mainstream environmental groups and communities of color and the progress that has been made. Available from: Zero Population Growth, Inc., 1400 Sixteenth St., NW Washington, DC 20036, 202/332-2200.

Human Rights and Scientific and Technological Developments by Fatma Zohra Ksentini. Proposal for the study of the problem of the environment and its relation to human rights. Published by the Subcommittee on Prevention of Discrimination and Protection of Minorities, Economic and Social Council, United Nations, New York, NY, E/CN.4/Sub.2/1990/12.

"Indian People Beware: Toxic Waste Disposal Targets Indian Lands," *Treaty Council News* (December 1987), p. 5. This groundbreaking article — written in 1987 — details the first salvo of the assault by toxic waste dumpers such as Chemical Waste Management on Indian lands. A key historical article that is just as relevant today. Available from the International Indian Treaty Council, 710 Clayton St, San Francisco, CA 94103. 415/566-0251.

"Minorities and Conservation: An Uphill Battle" by Charles Jordan in *Earth Work*, Vol. 1; No. 2. An article concerning the historic cultural and racial imbalance of the American conservation movement. Earth Work, SCA. PO Box 550. Charlestown, NH 03603. \$16.00.

The New Era of Environmental Diplomacy: Looking Forward to the 1992 Conference on Environmental and Development by Stephen D. Lerner. Environmentalist strategies to promote sustainable development. Available from: Commonweal, PO Box 316, Bolinas, CA 94924, 415/868-0976.

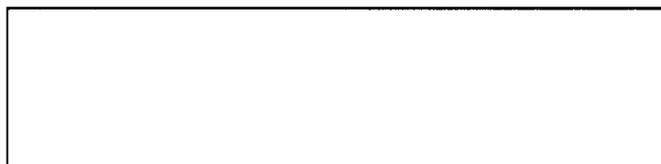
Policy Alternatives on Environment -- A State Report, Vol. 8, No. 1. A state-by-state review of environmental issues including toxic prevention, people of color in the environmental movement, energy conservation and sustainable agriculture. Center for Policy Alternatives, 1875 Connecticut Ave. NW, Suite 710, Washington, DC 20009, 202/387-6030.

The Proceedings of the Michigan Conference on Race and the Incidence of Environmental Hazards, edited by Bunyan Bryant and Paul Mohai with Miriam Zweizig, is a collection of 13 articles documenting the disproportionate impact of environmental hazards on people of color, each by a leading scholar on the subject — it includes pieces by Charles Lee, Bob Bullard, Michel Gelobter and Beverly Wright, among many other members of the "Michigan Group." Very few copies of this compendium exist, but we've heard that it may be published soon. Contact Bunyan Bryant, University of Michigan School of Natural Resources, Dana Building, 430 E. University. Ann Arbor, MI 48109-1115.

"Race, Poverty and the Environment: Bibliography & Listing of Resource Organizations." A 17-page mimeo produced in February 1991 by the Environmental Services Coordination Office of Washtenaw County, MI, this resource lists dozens of articles and reports on race, poverty and the environment in annotated bibliography form. Although organized in a somewhat haphazard way and with too short (and sometimes incorrect) abstracts of articles, this list is quite useful. Available from Rebecca Head, director, Environmental Services Coordination Office, P.O. Box 8645, Ann Arbor, MI 48107-8645, 313/994-2398, fax 313/994-2368.

Shades of Green, edited by Dianne Saunders. *Shades of Green'* promotes the inclusion of people of color in environmental film, video, and television. It is designed to be a useful resource which will encourage and facilitate networking between media professionals and environmentalists who are committed to advancing multicultural concerns. Contact: Dianne Saunders, The Video Project, 5332 College Ave., Suite 101, Oakland, CA 94618, 415/655-9050. \$5.00.

Urban Action 1990 is a student-produced journal of urban affairs from the Urban Studies program at San Francisco State University. Topics in this edition include land use conflicts, rent control, public housing and non-profit housing and urban growth. Urban Action, Urban Studies Program, San Francisco State University, 1600 Holloway Ave., San Francisco, CA 94132. \$1.00.



<< from RACHEL CARSON, page 5

her painstakingly documented work so they fruitlessly appealed to our ugliest oppressive conditioning to weaken her impact.

Fifth, in these days when *50 Simple Things You Can Do to Save the Earth* tops the NY Times best-sellers list, Carson's work stands out as one difficult thing that a woman did to save the Earth. She made her intentions to halt humanity's war on the biosphere very explicit. Her book was deliberately constructed to withstand any rebuttal. Twenty-eight years later, her work remains as fundamentally sound as the day it was published. Four years elapsed from the inception of *Silent Spring* to its publication, during which time she battled with arthritis and a host of other health problems, including breast cancer, a condition that eventually took her life. Most of what we need to do to save the Earth will not be simple. *Silent Spring* shows forth as one of history's greatest tributes to the difference that one person armed with the truth and a love of life can make to the future of the world.

Today, as we stand in the doorway to the Third Millennium, we witness an emerging voice from people of color and the poor as the conscience of the environmental movement, insisting that we make the connections between social and environmental justice, between civil and environmental rights. *Silent Spring* fails to make the connection as explicit as I would like. This is the book's only weakness, one that can be excused given its historical context.

Anyone who decides to take up the task of reading or rereading *Silent Spring* should read as a companion volume Patricia Hynes' *The Recurring Silent Spring*. Where Carson stops short, Hynes soars, complimenting and expanding on the vision of *Silent Spring* in a thoroughly exciting manner. Hynes points out that, by coincidence, the charter convention of the United Farm Workers (UFW) took place on September 30, 1962, only 3 days after the publication of *Silent Spring*. Carson made several references to the possible human costs of pesticide use but mistakenly assumed, probably due to her academic conditioning, that there was little "hard data" available on the subject. If Carson had attended the UFW convention she would have encountered a wealth of "hard data" on the human toll of chemically-dependent agriculture. She would have received first-hand accounts of the skin rashes, dizziness and nausea, respiratory ailments, miscarriages, birth defects, cancers and deaths faced by the farmworkers due to pesticide exposure. Carson's activism would have certainly been enriched and deepened by these struggling Latino farmworkers; she would have undoubtedly come on strongly on their behalf, and the movement that she inspired might have developed a much stronger social justice critique than it has. All speculation aside, *Silent Spring* is a book of unique and timeless impact, and Rachel Carson, a remarkable individual. Such distinctive humanity deserves our keenest attention and our utmost appreciation. In times like ours, when we desperately need environmental heroes as models after which to pattern our own commitment to celebrating and defending our home planet, we need look no further than this woman, our bold foremother, to lend us the courage and example we need to carry the good work forward into the next century.

Victor Lewis is a policy board member of the Urban Habitat Program.

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us, ecological knowledge and technique is inseparable from spirituality. Your science separates everything; then it tries to put it back together. That is the fallacy of "the total is the sum of the parts." You must first look at the whole. That "whole" is what is embodied in the deep metaphor of traditional Indian knowledge. That "whole" does not separate people from nature. The racist assumption, now 500 years old, that Europeans are "superior" to Indians is hidden in your science.

Indian people managed (and many still manage) their lands with competence and sophisticated techniques. There is no hard and fast line between hunting/gathering and what you call "agriculture." It is a kind of "agro-

We are saying that we are partly responsible for the very landscape which your ancestors found in this hemisphere. Your "pristine" or "natural" landscape must include Indian people.

ecology." The only remaining viable working models of agro-ecology are those of original peoples. You talk about saving the rainforests, but virtually ignore the peoples who live in and care for the rainforest.

There is a rainforest just 5 or 6 hours from the San Francisco Bay Area that has been clear-cut logged and which Indian people are trying to save for future generations by making it into an intertribal park and restoring a healthy forest through the use of historical Indian land management techniques. It is called "Sinkyone." Yet most environmental organizations have refused to support our efforts.

You talk about "natural processes" as if people were never involved in these processes. One important reason that we had well-spaced giant old growth trees, rich grasslands with deep, fertile soils, ample water and vast herds of animals (and their predators), flocks of birds that blackened the skies, etc. was Indian stewardship. We worked in concert with other natural processes like herbivore, grazing, predation, and fire. We regularly burned the grasslands and forests to enhance wildlife and plants that we used for food and fiber. We kept track of deer and elk herds as well as other game species. We knew, at any given time, what was going on with all of the plants and animals—and adjusted our management strategies accordingly.

We routinely based hunting/gathering activities on

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health. Exposures to nitrate in drinking water can cause "blue-baby syndrome," a potentially fatal condition in infants. Pesticides that have been found in ground and surface water are known or suspected to cause cancer, birth defects, damage to the nervous system, and other health effects.

The lack of national leadership to protect water resources from agricultural nonpoint source pollution, combined with the additional threats pesticides pose to the environment and public health, provides a strong argument for reducing the use of agricultural chemicals. Source reduction, as in other industries, is a logical, practical strategy for preventing the environmental problems associated with agriculture.

Widespread adoption of alternative agricultural practices holds the greatest potential for source reduction. These farming practices are designed to reduce chemical inputs, preserve and enhance natural resources, and protect human health. Alternative agriculture encompasses practices often referred to as biological, low (or reduced) input, organic, regenerative, and sustainable. Alternative practices contrast with conventional methods of farming that are characterized by intensive cropping systems which rely on synthetic chemical inputs to control pests and maintain soil fertility.

Despite the growing interest in alternative agriculture, broad implementation of these techniques has not occurred. This article seeks to illustrate the dramatic potential for alternative farming systems to reduce pesticide use. By obtaining information on alternative pest control strategies from published scientific literature, results of ongoing research, and experiences of individual farmers, this article projects potential reductions in pesticide applications for nine crops in California and Iowa. These crops were chosen to provide a cross section of the diversity of American agriculture. California, the leading agricultural state in the nation, produces over 50 percent of the nation's fruit and nuts and 47 percent of the nation's

vegetables. Five-hundred and eighty million pounds of pesticide active ingredients were sold in California in 1987. Iowa typically produces over 20 percent of the nation's corn crop and ten percent of the supplies traded worldwide. Fifty-seven million pounds of herbicides are estimated to be applied to Iowa cropland each year. Individual crops were selected based on high use of pesticides known or suspected to contaminate water supplies and production in areas considered particularly vulnerable to groundwater contamination.

The viability of alternative farming practices varies depending on weather and soil conditions and the management capabilities of individual farmers. In California alfalfa, border harvesting and strip cutting could potentially reduce insecticide applications by 30 percent. Intercropping of cotton in alfalfa could potentially decrease herbicide applications by 40 percent. Insecticide applications could potentially be reduced by 50 percent in San Joaquin

Ten percent of community wells and four percent of rural domestic wells contain at least one pesticide, resulting in at least 1.3 million people drinking from contaminated wells. A total of 46 different pesticides have been detected in the groundwater of 26 different states as a result of normal agricultural use. Once contaminated, it is largely impossible to restore groundwater to its original condition.

Valley citrus with greater adoption of integrated pest management (IPM). "Middles" management in citrus could potentially decrease herbicide applications by 40 percent. In California cotton, insecticide applications could potentially be reduced 25 percent with interplanting and IPM. Leaf removal could potentially reduce fungicide applications by 30 percent in California wine grapes. Insecticide and herbicide

applications in California grapes could potentially be decreased by 35 and 50 percent, respectively, with a variety of alternative techniques. In California lettuce, greater use of IPM and crop rotations could potentially reduce insecticide, fungicide, and herbicide applications by 25, 20, and 50 percent, respectively. Adoption of a no-till/drill-seeding system, cover crops, and crop rotations could potentially decrease herbicide and insecticide applications by 50 and 25 percent respectively in California rice. In processing tomatoes, sub-surface drip irrigation, crop rotations, and IPM could potentially reduce herbicide and insecticide applications by 50 and 25 percent. Banding herbicides, ridge-till, crop rotations, and a corn rootworm bait could potentially decrease herbicide and insecticide applications by 50 and 80 percent, respectively, in Iowa corn. In Iowa soybeans, banding herbicides, ridge-till, narrow row production, and strip intercropping could potentially decrease herbicide applications by 50 percent.

Several barriers stand in the way of widespread adoption of promising alternative farming practices. In some areas, a scarcity of skilled labor makes it difficult to follow aspects of IPM that require scouting and other labor-intensive activities. Weather-induced risks, such as heavy spring rains in the Corn Belt, can deter mechanical cultivation. Regional soil conditions can also make it difficult to adopt alternative strategies. For

example, the heavy clay soils in certain rice-growing regions of California deter crop rotations.

Federal and state policies also hinder the adoption of alternative farming systems. First, the federal government is the hub of the huge agricultural research and extension complex that spends more than \$1.5 billion each year. Yet alternative agriculture research is

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underfunded and dissemination of information about these techniques is inadequate. Second, many farmers receive a large portion of their income from farm subsidies disbursed by the federal government. However, the rules by which these payments are distributed prevent reductions in pesticide use by penalizing crop rotations and promoting surplus production and increased yields. Third, federal and

state marketing orders and grade standards can result in unnecessary pesticide applications by specifying cosmetic criteria for produce that are difficult to attain cost-effectively without the use of chemicals.

Fourth, current pesticide regulations hinder the rapid registration of biologically-based materials that could substitute for chemical pesticides. Fifth, the federal Bureau of Reclamation supplies growers in California and other western states with irrigation water at rates substantially below the true cost. Growers, therefore, are discouraged to invest in water conservation techniques that could facilitate reductions in pesticide use. Finally, the costs farmers now pay for pesticides fail to account for the impact of these chemicals on human health and the environment (so-called externalities). This makes pesticides **incorrectly** cheaper than alternative farming systems.

Policy reforms in six key areas are essential for eliminating many of the barriers to widespread adoption of alternative farming systems: agricul-

tural research, federal farm programs, marketing policies, pesticide registration requirements, water pricing, and hidden costs of agricultural chemicals. To date, the development and implementation of agricultural techniques that reduce chemical use have been stymied by the lack of funds directed to alternative agricultural research. Funds for alternative farming research, particularly on-farm, systems-oriented

should be granted to all certified organic produce.

The development of biologically-based materials, such as botanicals, microbials, and pheromones has been obstructed by federal and state pesticide registration requirements. Congress should direct the National Academy of Sciences to review existing regulations for biologically-based materials and make recommendations for improving government procedures to hasten the registration of biologically-based pest control techniques.

The use of efficient irrigation systems has the potential to significantly reduce the use of agricultural chemicals and their **transport** to water supplies. However, because of the low price of irrigation supplies available to many growers, more efficient technologies and management practices have not been widely adopted. The U.S. Bureau of Reclamation should revise its water prices to encourage greater efficiency. Similarly, irrigation districts should adopt tiered water rate schedules that discourage inefficient irrigation practices and encourage the adoption of alternative farming systems.

Conventional agricultural practices rely extensively on the use of pesticides and fertilizers.

However, current market prices for pesticides and fertilizers do not reflect the true environmental and social costs of their use. Federal and state governments should levy fees on the use of pesticides and fertilizers to reflect the environmental and health costs, and to provide revenues for alternative agricultural research and development programs, as is the current case in Iowa.

Harvest of Hope: The Potential for Alternative Agriculture to Reduce Pesticide Use, by Jennifer Curtis with Lawrie Mott and Tom Kuhnle, is available for \$19.95 (includes postage and handling). Send check or money order to NRDC Publications, Natural Resources Defense Council, 40 West 20th Street, New York, NY 10011.

Potential Reductions in Pesticide Applications,

	Insecticide	Herbicide	Fungicide
California			
Alfalfa	30 %	40 %	a
Citrus	50	40	a
Cotton	25	b	a
Grapes	35	50	30 %
Lettuce	25	50	20
Rice	25	50	a
Tomatoes	25	50	b
Iowa			
Corn	80	50	a
Soybeans	b	50	a

^aPotential reductions were not estimated because chemical applications were minimal.

^bInsufficient information available to estimate potential reductions.

research, should be substantially increased.

The federal farm programs reward farmers for producing a handful of commodity crops that tend to use large amounts of chemical inputs. Commodity programs should be amended so farmers can adopt more environmentally-sound farming systems without incurring financial penalties.

Federal and state marketing policies often make it difficult for farmers to adopt alternative farming practices that use fewer pesticides. Federal and state marketing orders should not be allowed to use cosmetic quality standards to differentiate produce. In addition, exemptions from marketing orders

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twice the state average rate. Over **80** percent of occupational illnesses in agriculture are due to chemical exposure, and the pesticides' effects are compounded by poor diet, unsanitary living conditions and poor medical care. The majority of farm workers are not provided with health insurance. The life expectancy of a male farmworker is **49** years, compared to **71.5** for men in the general population, in part due to continuous work with pesticides.

Farmworkers are also among the poorest Californians: the average family in which all four members worked has a total earnings of **\$8,800** per year. The *Agricultural Workers in Central California* survey also found that for the average **155** days per year of employment in the fields, farmworker salaries average between **\$4.50** and **\$5.10** per hour. And their salaries do not keep pace with either inflation or grower earnings. Between **1984** and **1988**, California farmworker salaries increased **15** percent, or three percent per year, while grower's net earnings increased **79** percent, or almost **16** percent a year.

Farmworkers are exposed to pesticides in a number of ways: by spraying or being sprayed in the fields; being oversprayed while outside a field; breathing fumes from pesticide drift or while mixing, loading or applying pesticides; and ingesting pesticide residue left on their hands or clothing or in contaminated water. The primary route of exposure is through their **skin**. Because workers must reach through pesticide residue-coated foliage to pick crops like grapes, citrus, peaches and other tree crops, most crew poisonings in California occur in those crops. As farmworkers spend their day **working** in the fields and orchards, they risk getting toxic chemicals on their **skin** and clothing.

In situations, where workers come into contact with residues, proper washing facilities are important for reducing exposure. Farmworkers have fought an uphill battle against growers for adequate field sanitation for years. A **1987** survey of farmworkers in the

U.S. and Canada by the Pesticide Action Network found that many employers did not provide for basic sanitation: **51** percent did not provide water, **31** percent did not provide toilets, **42** percent did not provide handwashing facilities, and **63** percent did not provide soap or towels.

While education, regulation and enforcement have improved somewhat in the past **20** years (for example, exposing workers to pesticides directly through spray or drift has been illegal since **1974**), farmworkers are still sprayed while they work. A **1982** study in North Carolina showed that of **205** workers interviewed, **62** percent had been sprayed directly or exposed to drift from a nearby field, while **70** percent had been exposed to pesticides in their career. In Washington state, **60** percent of farmworkers surveyed reported exposure to pesticides during their careers. Forty-three percent were exposed by spray or drift, and while half of this group felt ill effects, only eight percent of them ever sought medical attention.

Workers in agriculture also encounter pesticides outside the workplace. As Dr. Marion Moses, director of the Pesticide Education Center and a physician who has long worked with farmworkers, explains:

Farmworkers live in homes surrounded by fields which are heavily and repeatedly sprayed. Pesticides are likely to be in the irrigation water, which many farmworkers must use for bathing and **drinking** due to the substandard living quarters provided by some employers. Pesticides may contaminate the groundwater from which they get their drinking water. Farmworkers are more likely to consume produce very soon after harvesting and thus may get even more pesticide residues in their food than the general public.

Farmworker children face pesticide exposure, as well: kids play in fields sprayed with pesticides, or their clothing may be washed together with their parents' pesticide-covered work clothes. Farmworker parents —, for whom childcare is not an option — are

forced to take their children with them to the fields where the children are exposed to pesticide residues. As Dr. Moses notes, "Since agriculture is the only industry in which children comprise a significant part of the workforce, occupational toxic exposures begin at a very young age." In California, farmworker children between **14** and **17** years old comprise almost ten percent of the workforce and work an average of eight weeks a year in the fields.

Some recent incidents of pesticide poisoning include:

- On September **23, 1988**, **33** members of a crew of **54** farmworkers were taken to the hospital and treated for severe symptoms of pesticide poisoning after entering a vineyard sprayed nine days earlier with methomyl on the Pandol Brothers Ranch near Delano. Two of the workers became unconscious, while others experienced nausea, headaches, dizziness and blurred vision.

- Juan Chabolla collapsed in a tomato field at the Jamul Ranch near San Diego after starting work putting in stakes for the plants an hour after the field was sprayed with the pesticide Monitor. Monitor, which is listed as a "most toxic" pesticide by the state, has a reentry interval of **24** hours. Chabolla's employer drove him **45** minutes to across the border to Tijuana, Mexico, instead of the closest medical facility, **10** minutes away in the U.S. Chabolla died en route to Mexico.

- Sixteen workers at Golden Gem Almonds Company were hospitalized on September **26, 1988**, after they entered a **packing** house that had been sprayed with the fumigant Gastoxin the night before. "I started to vomit repeatedly, I felt pain in my chest, I could not talk and my face and mouth went numb," said worker Marta Chavarin, who still felt chest pains, a sore throat and facial tingling two weeks after the incident.

Pesticide poisoning is a frightening experience, according to farmworkers and other victims. Early symptoms of pesticide poisoning include eye and skin irritation, headache, nausea, vomiting,

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sweating, diarrhea, and stomach pains. In the latter stages of severe poisonings, symptoms may progress from difficult and labored breathing to loss of muscle control, convulsions, and possibly death.

Workers are not in a strong position to protest unsafe working conditions. Most growers do not tell **farmworkers** what chemicals are being used, although they are required to by state law.

Even when farmworkers know they are working with hazardous chemicals, they may fear retaliation if they complain. "We don't have any say about pesticides... A lot of times people won't speak up because we can be replaced," says Maria Lopez, who began working in the fields around Delano when she was 16 and who now works with the National Farm Worker Ministry. "What they say is, 'If you don't like it, we can get somebody else...' We have to pay the rent, we have to eat." Undocumented workers are particularly powerless. In an incident reported by Cal-OSHA, undocumented **farmworkers** who reported pesticide-related illnesses were reported to the Immigration and Naturalization Service by the grower involved, and presumably deported.

Workers have little protection when they *are* poisoned. Most workers lack health insurance. Those that do get medical attention are often misdiagnosed, as physicians are not trained to recognize pesticide poisoning symptoms, some of which resemble flu symptoms. Lost work is rarely compensated: of 54 pesticide poisoning incidents reported in a recent survey, only 15 percent received workers' compensation.

Workers also have little protection in state and federal laws. Even where strong laws exist on the books, workers and residents in California are not protected from the dangers of pesticide use because there is little or no enforcement. Enforcement is negligible even when serious incidents occur, as an internal memo from the state Department of Health Services on the Department's 1984 "priority investiga-

tions" of pesticide poisoning cases reveals:

Ten of the 61 [pesticide poisoning] episodes showed violation of Worker Health and Safety regulations, many of them of a rather serious nature: failure to provide proper protective equipment, failure to conduct required safety training, failure to use a closed system, absence of medical supervision, etc. In none of these did the employer receive more than a "Notice of Violation" even where serious illness had occurred. In the one case turned over to the District Attorney with a criminal complaint it was an *employee* who was fined. The employer received only a Notice of Violation for five worker safety noncompliances.

As the memo concluded, "If you go through a red light or even park too long at a meter, you get a ticket and a fine. If you break the law with regard to worker safety in agriculture all you get is a Notice of Violation, even if you have managed to poison a half dozen workers."

Because pesticide violations cases must be brought by local officials who may be reluctant to prosecute high-placed members of their communities, there are no sanctions for breaking pesticide laws in most cases, and the few exceptions are limited to small fines. A 1984 study by the Monterey County Pesticide Coalition (MCPC) of pesticide regulation enforcement in Monterey County found that of 1,001 Notices of Violation issued by the County Agricultural Commissioner (CAC) over five years, only four fines were assessed by the District Attorney's office. In Kern County, the situation is similar: of the 665 violations uncovered by the county agriculture department from July 1987 to June 1988, just eight resulted in fines, mostly \$50 each.

A local crop-dusting company in Bakersfield, San Joaquin Helicopters Inc., was found in violation of pesticide laws each of the eight times it was inspected over a 16 month period, for, among other things, spraying workers while in a field, using pesticides on crops for which they were not autho-

rized, and disposing of toxic chemicals by dumping them on a road. The company was never fined.

Pesticide Exposure at Home

Pesticides also threaten **farmworkers** and other rural residents where they live, through contamination of their air and water. Rural communities near fields face pesticide overspray and drift problems, and pesticides stay in the atmosphere and travel far beyond their original intended destination. In a study in the San Joaquin Valley, pesticides have even been found to concentrate in fog. Many rural towns have also had their groundwater contaminated by pesticides leaching through the soil into underground sources of water, and at least one study of groundwater contamination has found that those areas with the highest level of contamination with the pesticide DBCP were "more rural, more Hispanic, and of lower income and education level." Airborne pesticides may cause poisonings, while long-term exposure to water contaminated by pesticides may increase the risk of cancer and birth defects.

What does this mean for rural residents? In an increasing number of rural towns, high concentrations of cancers are being found; while the cause of these "cancer clusters" is still largely unknown, residents and some state epidemiologists suspect pesticide exposure may be a contributing factor. In McFarland, a community surrounded by fields, at least 13 children have contracted cancer since 1975 — including eight children between 1982 and 1985. Six children of Latino **farmworkers** have been diagnosed with cancer in **Earlimart**, a town of just 5,600 people, just 15 miles up the road from McFarland. One health official has described the San Joaquin Valley as a "grand experiment" in the effects of pesticides on humans.

Excerpted from *California Communities at Risk: The Impact of Environmental Hazards on Poor People*. A copy of this article with references is available for \$2.00 for shipping and handling from Luke Cole, CRLAF, 2111 Mission St Suite 401, San Francisco, CA 94110.

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detailed ecological knowledge. And we performed ceremonies to be sure that our animal and plant relatives would not be offended by the taking of their lives, so that we could continue to live well and in harmony with the land. Kinship and reciprocity — what the white man call "superstitions and primitive fears" — was the foundation of our spiritual and material welfares.

We are saying that we are partly responsible for the very landscape which your ancestors found in this

We extend our hand to you today as we did many years ago to your forefathers. Then, you turned on us. Now, with most of our lands gone, you ignore us.

hemisphere. Your "pristine" or "natural" landscape must include Indian people. Without us, you will continue to experience species extinction, soil erosion, degradation of wildlife habitat, catastrophic forest fires, severe flooding, untimely droughts and **desertification**, aquifer depletion, overgrazing and unsustainable forestry.

We extend our hand to you today as we did many years ago to your forefathers. Then, you turned on us. Now, with most of our lands gone, you ignore us. You take that which pleases you—like our ceremonial **knowledge**—without acknowledging us as a people with a rightful place in the environment.

There will be no children unless we work together.

This letter appeared in the Winter 1990 issue of New World Times (see Resources, page 11).

"Grape-Free Zones" are the Latest Boycott Tool

The National Farm Worker Ministry is calling upon its member organizations and supporters to declare their churches, hospitals, organizations and homes Grape-Free-Zones until contracts are signed with the United Farm Workers eliminating the use of dangerous pesticides in the fields.

"Many of these folks have been supporting the boycott since it began, but we are asking them to go to the extra mile and publicly **witness** to that support," said Sr. Pat Drydyk, Executive Director of NFWM. "It can be as simple as wearing a grape boycott button or as extensive as informing every hospital patient why there are no grapes on the menu."

Church support of the UFW boycott continues to grow. Most recently the United Methodist General Board of Church and Society reaffirmed its 1989 endorsement of the California grape boycott. The US Urban-Rural Mission of the World Council of Churches endorsed the grape boycott at its July 1990 meeting. The Franciscan Sisters of Mary announced that all of their health care facilities and their corporate office have stopped buying and using California table grapes.

The Grape-Free-Zone Campaign will help build the momentum begun by these and over 200 other church endorsements. This is especially important during the Thanksgiving and Christmas holidays which are peak grape buying seasons.

The United Farm Workers report that grape sales are down by 30% in most areas of the country. However, the growers are dumping the excess grapes in the Midwest where the sales are up 26%, with prices as low as 47 cents a pound.

Grape-Free-Zone packets are available from the NFWM administrative office (1337 W. Ohio, Chicago, IL 60622, 312/829-6436). Each packet includes a suggested procedure, sample

press release, bulletin insert and visuals to use in publicizing the Grape-Free-Zone declaration.

All participants in the campaign are urged to write to the heads of supermarket chains in their area asking that the stores remove California table grapes from their shelves. Action committees will be formed to do human **billboarding** (holding large signs that say "Boycott Grapes" at busy intersections) and petition gathering from consumers outside supermarkets.

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production has on Washington's farm labor community.

The farmworkers point to the following facts to bolster their campaign:

- More toxic chemicals are used in the production of apples than in any other agricultural commodity, making the modern apple orchard more akin to an industrial setting where very toxic chemicals are used in every phase of production, from the onset of blooming to storage in the warehouse.
- Between 30 and 60 percent of Washington apple workers experience pesticide poisoning symptoms during the thinning and harvesting of apples.
- Because of the lack of showers and changing and laundry facilities, pesticide applicators and fieldworkers can transport pesticide residues on their clothes, shoes and skin into the home, where children, infants and expectant mothers may be exposed.
- Most of the state's 50,000 farmworkers are concentrated in the apple crop, and Washington apple workers typically make between \$6,000 and \$9,000 a year.

For more information on the campaign, contact Centro Campesino, P.O. Box 800, Granger, WA 98932, 509/854-2052.

Farmworkers Tackle Pesticides, Launch "One Less Apple a Day" Campaign

Farmworkers in the state of Washington are asking you to join the "One Less Apple a Day" campaign in order to keep the doctor away from the farmworker families who toil in the Washington apple orchards on an almost year-round basis, doing such dangerous work as pruning, thinning and harvesting.

Although the Washington state apple industry raises and spends over \$18,000,000 a year promoting the wholesome image of the Washington apple, it does little, if anything, to promote the health and well-being of the 50,000 farmworkers who are jeopardizing their health and well-being for below-poverty wage levels working in the apple orchards.

Because of extensive use of from 12 to 16 different toxic chemicals throughout the growing season, the workers who cultivate and harvest apples are subjected to a systematic poisoning process. Exposure to pesticides occurs on a daily basis through residue on foliage, and often through pesticide drift. Pesticide exposure is part and parcel of the work process in the apple orchards.

Although workers are constantly being exposed to pesticides, and are working in dangerous conditions — constantly climbing ladders with heavy bags and equipment, stretching

on ladders, working a fast pace, working in all kinds of weather — workers are barely paid above the state minimum wage of \$4.25 for thinning and pruning.

Because of the dangers of orchard work, farmworkers are fighting back and are simply asking the \$400 million apple industry to negotiate with workers and adopt labor policies which would provide for a safe workplace and fair wages. The workers are asking the industry's corporate leaders and policy makers (the Washington Apple Commission and the Washington Horticultural Association) to adopt and implement policies which would reduce the use of pesticides and enable workers to earn a fair wage. The industry has so far refused to meet with workers.

The Washington state farmworker community is now asking the public to help them in getting the industry's leaders to deal with the pesticide problem and below poverty wages, by joining the "One Less Apple a Day" campaign. Since the industry is telling consumers how good the Washington apple is for them, consumers can tell the apple industry that they don't see the apple as a desirable product due to the amount of pesticides used to produce the apple and the effect apple

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