Chemicals of special concern

- PAN Dirty Dozen Pesticides
- PAN Bad Actor Pesticides

Pesticide Action Network (PAN) Dirty Dozen Pesticides

PAN International launched its Dirty Dozen Campaign in 1985 to target a list of extremely hazardous pesticides for bans or strict controls on production and use worldwide, and to advocate their replacement with safe and sustainable pest control methods.

Collectively, Dirty Dozen pesticides cause many deaths and widespread environmental damage every year. Most have been banned or restricted in the industrialized countries because of their known hazards. Yet the Dirty Dozen are still heavily promoted and widely used in many developing nations, where the lack of protective equipment, safety training, and medical services makes their impact even more devastating.

The Dirty Dozen includes: aldicarb, toxaphene, chlordane and heptachlor, chlordimeform, chlorobenzilate, DBCP, DDT, the "drins" (aldrin, dieldrin and endrin), EDB, HCH and lindane, paraquat, parathion and methyl parathion, pentachlorophenol, and 2,4,5-T. Most of these pesticides qualify as persistent organic pollutants (POPs), which are notable in their longevity, toxicity to humans and animals, and their ability to be transported around the globe through the atmosphere.

The United Nations Environment Programme (UNEP) has identified a number of the Dirty Dozen chemicals as the initial targets for global elimination under an international treaty signed in May 2001 (1, 2). Nine of these chemicals are organochlorine pesticides (aldrin, endrin, dieldrin, DDT, chlordane, heptachlor, hexachlorobenzene, toxaphene and mirex). The industrial chemicals dioxin, furans and PCBs are also on the POPs treaty list. The treaty, which will come

into force when ratified by 50 countries, will have provisions to add additional chemicals which meet the agreed-upon criteria for persistence in the environment, bioaccumulation, and transportability. There is widespread agreement that some of the remaining Dirty Dozen pesticides which are still in use in the United States and other industrialized countries (e.g., lindane and endosulfan) meet these criteria. Other, less persistent but still highly toxic Dirty Dozen chemicals like methyl parathion, pentachlorophenol, paraquat, and 2,4,5-T remain in use in the U.S. or other countries.

References:

Articles from PAN related to the Dirty Dozen can be found by searching for "Dirty Dozen" at the PANNA Web site.

1. *Persistent Organic Pollutants*, United Nations Environment Programme. Viewed on October 31, 2002.
2. International POPs Elimination Network Web site. Viewed on October 31, 2002.

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Pesticide Action Network (PAN) Bad Actor Pesticides

In order to identify a "most toxic" set of pesticides, Pesticide Action Network (PAN) and Californians for Pesticide Reform (CPR) created the term PAN Bad Actor pesticides. These pesticides are at least one of the following:

- Known or probable carcinogens, as designated by the International Agency for Research on Cancer (IARC), U.S. EPA, U.S. National Toxicology Program, and the state of California's Proposition 65 list.
- Reproductive or developmental toxicants, as designated by the state of California's Proposition 65 list.
- Neurotoxic cholinesterase inhibitors, as designated by California Department of

Pesticide Regulation, the Materials Safety Data Sheet for the particular chemical, or PAN staff evaluation of chemical structure (for organophosphorus compounds).

- Known groundwater contaminants, as designated by the state of California (for actively registered pesticides) or from historic groundwater monitoring records (for banned pesticides).
- Pesticides with high acute toxicity, as designated by the World Health Organization (WHO), the U.S. EPA, or the U.S. National Toxicology Program.

In 2000, PAN and CPR published *Hooked on Poison: Pesticide Use in California 1991-1998,* a report on trends in pesticide use in California with a particular focus on Bad Actor pesticides used in California.

About the Data: Accuracy, currency, comprehensiveness and source

Data for PAN Bad Actors come from official lists of chemicals with certain toxicity properties. The available lists are generally accurate and up-to-date. However, because many chemicals have not yet been thoroughly evaluated, these lists cannot be considered comprehensive. New chemicals will be added as they are listed in the official source lists.

References:

See individual toxicant categories (acute toxins, carcinogens, etc.) for data sources.

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Last updated November 11, 2002 .