

A young child with short brown hair, wearing a pink zip-up hoodie, is looking down at a small red ladybug on their left hand. The child is standing on a playground with a yellow slide and blue metal frame in the background. The ground is covered in wood chips. The text "Pesticides and Children's Health in Washington" is overlaid in white on the top right of the image.

Pesticides and Children's Health in Washington

Northwest Center for
Alternatives to Pesticides
Megan Dunn
June 2014



***What Are
Pesticides?***

What Are Pesticides?

Any agent that is designed specifically for or effectively used to kill an organism that is deemed a pest.

Herbicides, insecticides, rodenticide and fungicides are all pesticides.

Pesticide Examples

Chemical compounds
Botanical oils (Neem, Clove oil)
Citrus oils (Citric acid, Limonene)
Minerals (Iron Phosphate, DE)
Microbes/microorganisms (BT, nematodes)
Beneficial Insects/Animals (Ladybugs)
Vinegar
Your shoe

Which ones to be concerned about?

Complex, synthesized chemical agents that
are toxic and persistent in the ecosystem...

...not your shoe!

“If we are going to live so intimately with these chemicals eating and drinking them, taking them into the very marrow of our bones-we had better know something about their nature and their power.”

-Rachel Carson, *Silent Spring*

**THE
INCREDIBLE
SHRINKING
WOMAN**



Who is NCAP?

The Northwest Center for Alternatives to Pesticides (NCAP) works to protect community and environmental health and inspire the use of ecologically sound solutions to reduce the use of pesticides.

NCAP works to protect those who are most vulnerable from harm caused by pesticides, while also striving to educate and help identify healthier, more ecologically sound solutions to common pest issues. We focus our campaigns in three main areas:

- Healthy People and Communities
- Healthy Food and Farms
- Healthy Water and Wildlife



A close-up photograph of a person's hand holding a green spray bottle with a yellow label. The hand is positioned on the left side of the frame, and the spray nozzle is directed towards the right. A fine mist of white liquid is being emitted from the nozzle, creating a soft, ethereal atmosphere. The background is a lush green lawn with several bright yellow dandelions in full bloom. The lighting is bright and natural, suggesting a sunny day outdoors. The overall composition is clean and focused on the act of spraying.

***Why Care About
Pesticide Use?***

***1.2 billion pounds of pesticides are
applied in US every year.***

-EPA

Pesticides threaten river and water quality

- 97% of the nation's urban streams are contaminated with **pesticides** (USGS 2006: *The Quality of Our Nation's Waters: Pesticides in the Nation's Streams and Ground Water, 1992-2001*)
- 83% of urban streams had pesticide levels that exceeded one or more benchmarks set to protect fish and wildlife. Urban streams were more likely than agricultural streams to have pesticide concentrations that exceeded these **benchmarks** (USGS 2006: *The Quality of Our Nation's Waters: Pesticides in the Nation's Streams and Ground Water, 1992-2001*)

Pesticides are hazardous to human health

Common pesticide injuries include:

- nerve damage
- lung damage
- loss of reproductive abilities
- disruption of immune and endocrine systems
- birth defects
- cancer

(Landrigan, P.J. et al. 1999. Pesticides and inner-city children: Exposures, risks, and prevention. Environmental Health Perspective 107 (Suppl. 3): 431-437.)

Pesticides are hazardous to human health

Looking at just 27 of the most commonly used pesticides

(Ref. #2 [www.epa.gov/oppbead1/pestsales/01pestsales/usage 201 2.html#3 6](http://www.epa.gov/oppbead1/pestsales/01pestsales/usage%201%202.html#3_6))

- 15 are have been classified as carcinogens with their use totaling about 300 million pounds per year *(US EPA. 2004. Chemicals evaluated for carcinogenic potential. http://npic.orst.edu/chemicals_evaluated_July2004.pdf)*
- 15 damage genes with their use totaling 350 million pounds per year *(National Library of Medicine. 1991-1998. Genetic toxicology: GENE-TOX. <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?GENETOX>)*
- 8 cause pregnancy problems with their use totaling about 150 million pounds per year *(US EPA. Toxicity data by category for chemicals listed under EPCRA Section 313. http://www.epa.gov/tri/chemical/hazard_categories.pdf)*

Children and Pesticides

- Kids are more affected by toxic exposure.
- Kids are more likely to become exposed.



“Children encounter pesticides daily and have unique susceptibilities to their potential toxicity....Epidemiologic evidence demonstrates associations between early life exposure to pesticides and pediatric cancers, decreased cognitive function, and behavioral problems.”

American Academy of Pediatrics

Policy Statement

Pesticide Exposure in Children

“Children are at a greater risk for some pesticides for a number of reasons. Children's internal organs are still developing and maturing and their enzymatic, metabolic, and immune systems may provide less natural protection than those of an adult. There are "critical periods" in human development when exposure to a toxin can permanently alter the way an individual's biological system operates.”

US Environmental Protection Agency

Pesticide Factsheets

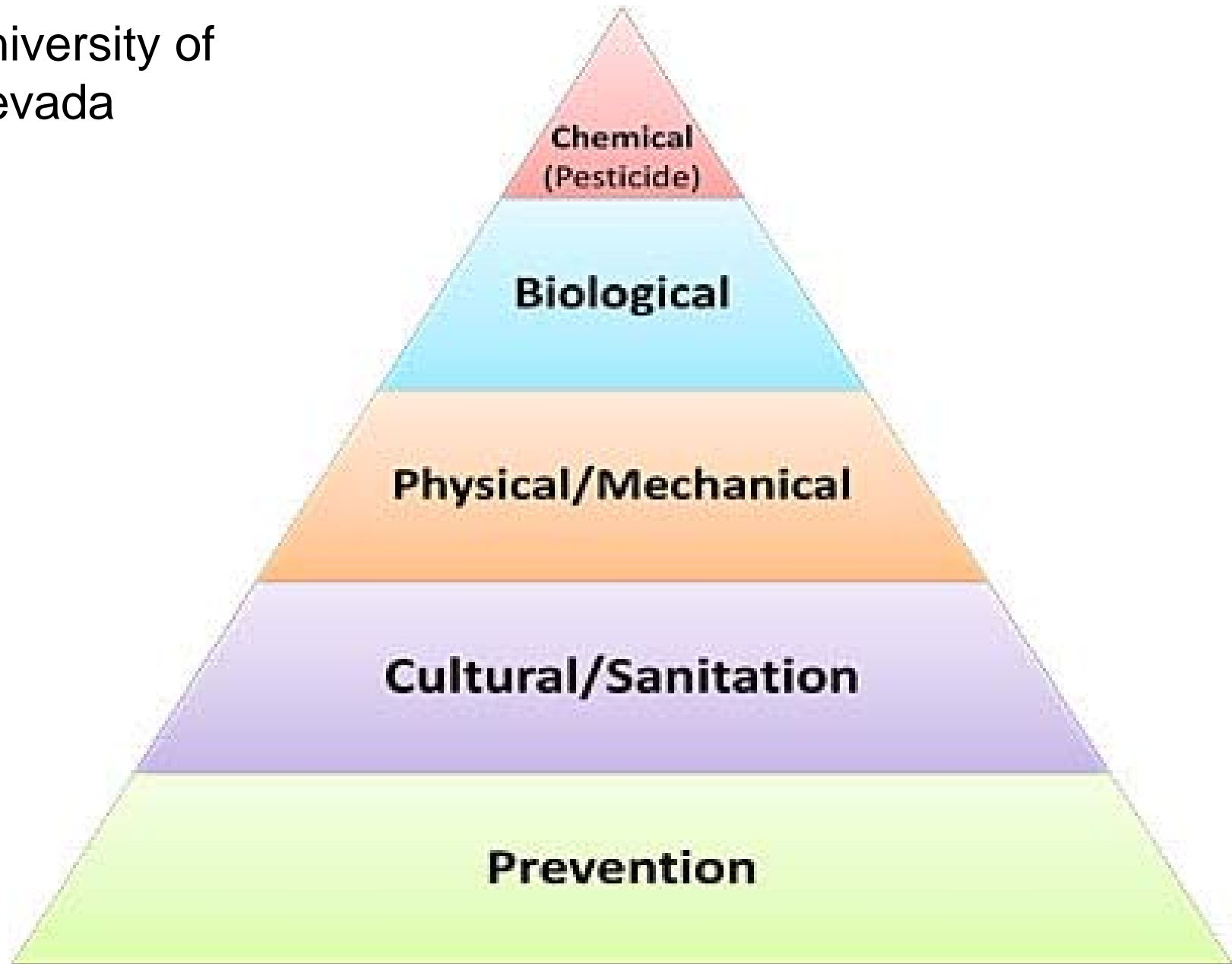
Children Are at Greater Risks from Pesticide Exposure

How to make a difference:
Integrated Pest Management

IPM

Schools, Public Space, Housing

University of
Nevada



Oregon's School IPM Law

- Effective July 1, 2012
- Schools must have IPM plans and trained IPM coordinators.
- Only “low impact” pesticides can be used.
- Pesticides are a “last resort.”
- Only licensed professionals can use pesticides.
- Must notify if pesticides will be applied.
- Must keep records of pesticides applied.

AVENGE®

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER!

Corrosive: Causes irreversible eye damage. May be fatal if swallowed or absorbed through the skin. **DO NOT** get in eyes, on skin, or on clothing.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- coveralls over short-sleeved shirt and short pants
- waterproof gloves
- shoes plus socks
- protective eyewear
- dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** apply when weather conditions favor run-off and/or drift from target area. **DO NOT** contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

DO NOT apply this product through any type of irrigation system.

This label must be in the possession of the user at the time of pesticide application.

ACTIVE INGREDIENT:

difenzoquat methyl sulfate 31.2%

INERT INGREDIENTS 68.8%

TOTAL 100.0%

(1 gallon contains 2 lbs. of difenzoquat cation)

EPA Reg. No. 241-266

**KEEP OUT OF REACH
OF CHILDREN**

**DANGER!
¡PELIGRO!**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

If swallowed: Call a doctor or get medical attention. Do not induce vomiting. Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol.

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. Get medical attention.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

In case of an emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

This pesticide has the signal word "Danger" on its label. It should not be used in Oregon schools.

Washington Schools

Current IPM plans for these districts: Seattle, Bainbridge Island, North Thurston County and Vancouver

NCAP is supporting Washington Green Schools to reduce pesticides.



What can we do to help encourage more district or single school policies?

Public Spaces

Parks

- Supporting local parks to implement IPM policies or adopt pesticide free pledges
- Encourage other cities to reduce pesticides with IPM policies
- Support training staff in Organic Land Care through the Oregon Tilth certification
- Resources and Training Guides for local activists (it works!)

Pesticide Free Places King County

in King County, Washington

Local Governments for Health and the Environment
King County, City of Seattle, Sound Cities Association

Hazardous Waste Environment & Health Newsroom Documents Extranet About Contact Customer Service

PESTICIDE-FREE PLACES

Home >> Pesticide-Free Places

Where kids and pets play worry-free
Find outdoor areas managed: **pesticide-free**/pesticide-reduced to protect people, water & wildlife. [Share](#)

Search by city or zip

Zoom to a

Zipcode: 98203

City:

- Pesticide-free place
- Pesticide-reduced place

List of places
Map legend - definitions
How to use the map
Disclaimer

Pesticide-Free Places

- [Why worry about where they play?](#)
- [How to get listed on the map](#)

Image: <http://www.lhwmp.org/home/pfparks/index.aspx#>

Unfortunately-we receive a lot of calls about road side spraying and drift.



Pesticides in Housing

- We offer resources for housing advocates and property managers on bedbug prevention and pesticide alternatives, including a video and poster
- Outreach and trainings for Health Inspectors
- Healthy Homes Coalition



BED BUGS?



DON'T SPRAY!



CALL FOR HELP:

Bug sprays, "foggers," and "bug bombs" are poisonous and may harm you or your neighbors.

Contact your property manager to get help with pests.



NORTHWEST CENTER FOR
ALTERNATIVES TO PESTICIDES
841.344.6048 PESTICIDE.ORG

Western
IPM
Center
WSPMC.UCDAVIS.EDU



Bedbug low literacy poster for property managers and housing advocates.

New Program-Early Exposure

Reach out to parents in an empowering way!

Example: Often advice for parents leads to fear

FDA and EPA issue updated draft advice for fish consumption

Advice encourages pregnant women and breastfeeding mothers to eat more fish that are lower in mercury

How do you reach out to women without increasing fears?

Early Exposure: What is Needed?

Where is support needed?

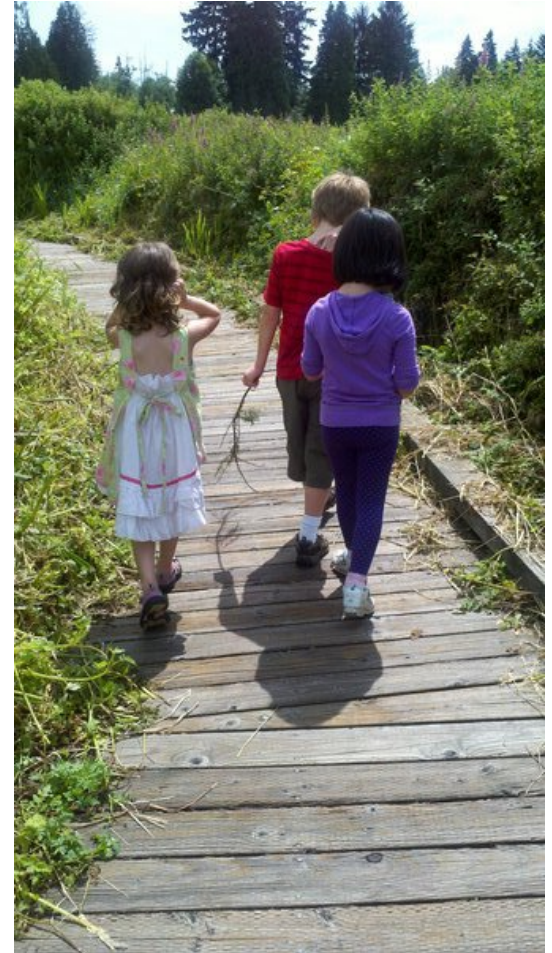
- What are you hearing from families?
- What are the concerns?

We will convene partners from vulnerable communities and work together to better protect children with a larger goal of improving overall well-being – reducing exposure that can lead to long term health problems using community participatory research.

What can NCAP do to better protect children?

What you can do: Create Positive Change!

1. Avoid using pesticides
2. Support organic agriculture
3. Preserve diversity within food production system
4. Vote for the environment
5. Support campaign finance reform and transparency
6. Support the movement to overturn Citizen's United
7. Support publicly funded agricultural research



Pesticide Alternative Resources

NCAP Alternatives Factsheets

<http://www.pesticide.org>

EPA

<http://www.epa.gov/pesticides/ipm/>

WSU IPM Education Program

<http://pep.wsu.edu/>

IPM for Public Spaces

www.sustainableplaces.org

Advocacy Resources

NCAP – www.pesticide.org

Beyond Pesticides – www.beyondpesticides.org

Pesticide Action Network – www.panna.org

Center for Food Safety – www.centerforfoodsafety.org

True Food Network – www.truefoodnow.org

Organic Trade Association - www.ota.com

Just Label It - www.justlabelit.org

Beyond Toxics – www.beyondtoxics.org

Millions Against Monsanto – www.organicconsumers.org

Oregon Tilth – www.tilth.org

Contact Information

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NORTHWEST CENTER FOR
ALTERNATIVES TO PESTICIDES