

#### Ten Reasons Not to Use Pesticides

March 2012

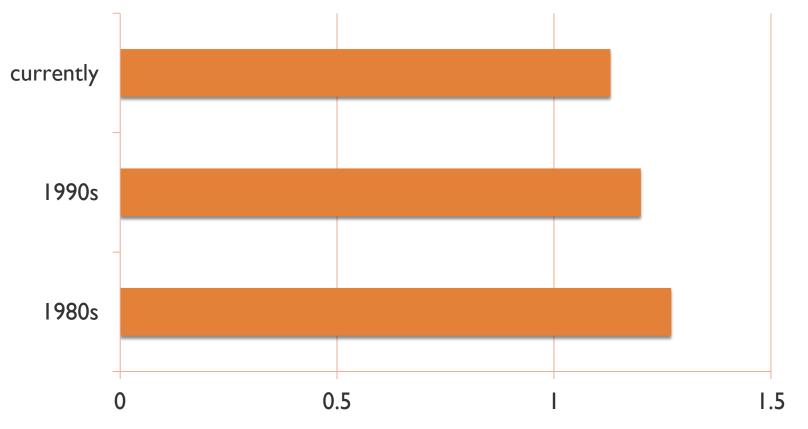


### 1. Pesticides don't solve pest problems.





# If pesticides really solved pest problems we wouldn't use them repeatedly.





Billions of pounds of pesticides used per

Source: . EPA http://www.epa.gov/opp00001/pestsales/

# Solving a pest problem means changing the conditions that allow a pest to thrive.







# On farms, this can mean planting varieties adapted to the farm's conditions.





### 2. Pesticides are hazardous to our health.





# Even U.S. EPA agrees

"Adverse effects of pesticide exposure range from mild symptoms of dizziness and nausea to serious, long-term neurological, developmental and reproductive disorders."

**--** U.S. Environmental Protection Agency

http://www.epa.gov/pesticides/factsheets/kidpesticide.htm





# Glyphosate (Roundup)

#### Most widely used herbicide

Estimated use: 190 million pounds per year

(US Environmental Protection Agency)

## National Institute of Occupational Safety and Health

"Mutagen" (damages genes)

"Reproductive Effector" (birth defects)

#### Source:

http://www.cdc.gov/niosh-rtecs/mc106738.html



# Chlorpyrifos

#### Most widely used insecticide

Estimated use: 11 million pounds per year

(US Environmental Protection Agency)

# National Institute of Occupational Safety and Health

"Mutagen" (damages genes)

"Reproductive Effector" (affects development of nervous system)

#### Source:

http://www.cdc.gov/niosh-rtecs/tf602160.html



### Chlorothalonil

#### Most widely used fungicide

Estimated use: 9 million pounds per year

(US Environmental Protection Agency)

## National Institute of Occupational Safety and Health

"Mutagen" (damages genes)

"Reproductive Effector" (affects fertility)

"Tumorigen" (causes cancer)

Source: http://www.cdc.gov/nioshrtecs/mc106738.html



### 3. Pesticides cause special problems for children.





For their size, children drink more water and eat more food than adults do. Their play exposes them to pesticides.





## Children are growing and developing.





### 4. Pesticides often contaminate food.

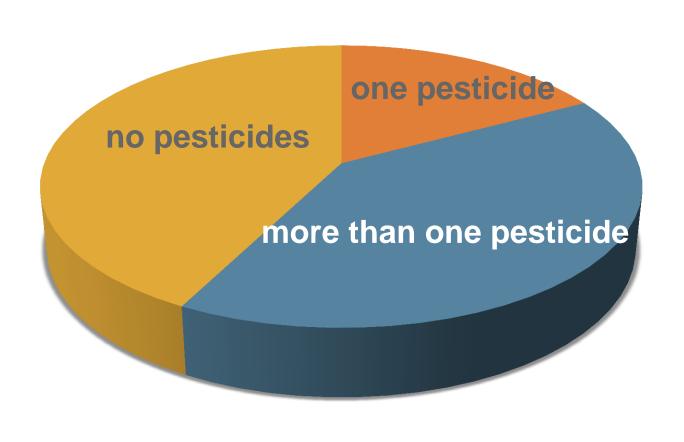




#### Contamination of common fruits and vegetables.

Source: USDA Pesticide Data Program 2009

www.ams. usda.gov/p dp



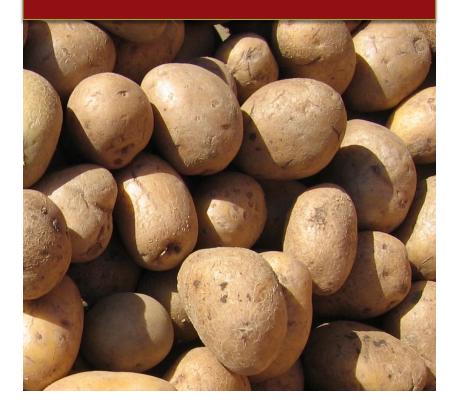


# Pesticide surprises

# 96% with at least one pesticide



#### 92% with at least one pesticide





# 5. Pesticides are particularly hazardous for farmers and farmworkers.





#### CHAMACOS: pesticides and farmworker families.

"In utero DAPs were associated adversely with attention in young children"

(in plain English)

Mothers with high exposures to insecticides are more likely to have children with ADHD.

http://cerch.org/organophosphatepesticide-exposure-and-attention-inyoung-mexican-american-children/





# Agricultural Health Study

- 15-year collaboration between federal agencies
- Cancer, asthma, diabetes, depression, heart attacks, and other health problems were more common in farmers who used pesticides.

http://aghealth.nci.nih.gov/





## 6. Pesticides are hazardous to pets.





#### One recent problem: "spot-on" flea and tick products.

EPA's review of problems reported in 2008 found spot-on treatments caused vomiting, diarrhea, hair loss, skin ulcers, lethargy, seizures, and death.

http://www.epa.gov/pesticides/health/petproductseval.html

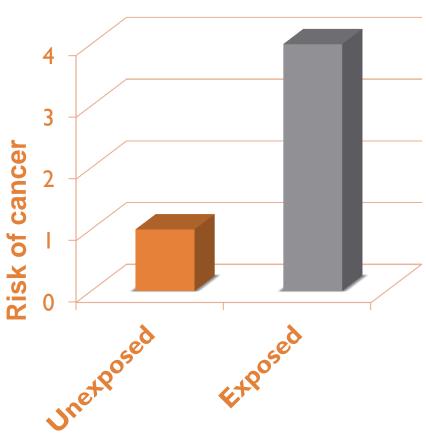




### Pets, lawn care herbicides, and cancer



Source: Glickman, L.T. et al. 2004. Herbicide exposure and the risk of transitional cell carcinoma of the urinary bladder in Scottish Terriers. *J. Am. Vet. Med. Assoc.* 24:1290-1297.





### 7. Pesticides contaminate water.





### 40 different pesticides in drinking water!

- National study of towns that get drinking water from rivers in farming areas
- Conducted by US
   Department of
   Agriculture

www.ams.usda.gov/pdp





#### Almost all streams are contaminated with pesticides.

- ◆ A national study found pesticides in 90 – 100% of streams tested.
- Study conducted by the US Geological Survey





#### 8. Pesticides are hazardous to fish and birds.







# Glyphosate (Roundup)

"Due to the presence of a toxic inert ingredient, some glyphosate end-use products must be labeled 'Toxic to fish'."

U.S. Environmental Protection Agency

http://www.epa.gov /oppsrrd1/REDs/fa ctsheets/0178fact.p



# Chlorpyrifos

U.S. Environmental Protection Agency

http://www.epa.gov /oppsrrd1/REDs/fa ctsheets/chlorpyrifo s\_fs.htm "A single application of chlorpyrifos poses risks to small mammals, birds, fish and aquatic invertebrate species for nearly all registered outdoor uses. Multiple applications increase the risks to wildlife and prolong exposures to toxic concentrations."



### Chlorothalonil

"Effects on avian reproduction have been observed at a dose of 5 ppb"

U.S. Environmental Protection Agency

http://www.epa.gov /oppsrrd1/REDs/fa ctsheets/0097fact.p " 'very highly toxic' to fish"



### Rachel Carson

- Inspired the pesticide reform movement
- Author of Silent Spring
- Effects of DDT on birds prompted her concern about pesticides





# 9. Pesticide health and safety testing is conducted by pesticide manufacturers.





### Who profits from the sale of pesticides?











(and more)



### Who tests pesticides?











(the same companies)



## 10. Pesticides have too many secrets.









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