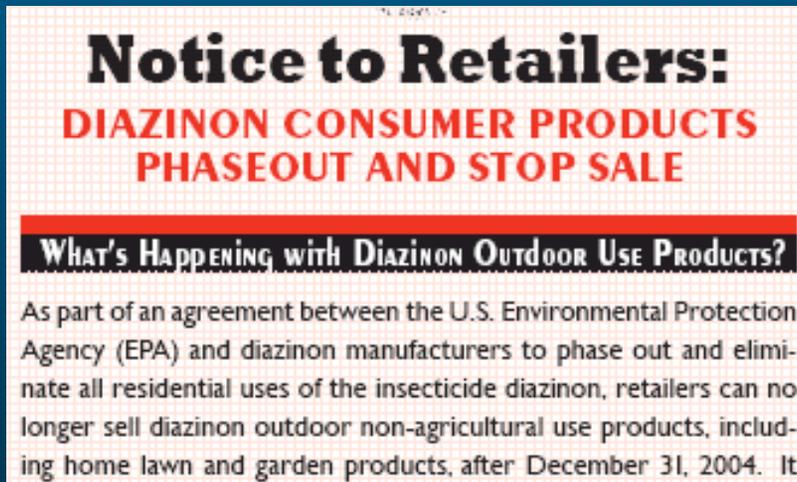


Trends in diazinon and other urban pesticides in stream samples from the northeastern United States, 1993-2004



Notice to Retailers:
**DIAZINON CONSUMER PRODUCTS
PHASEOUT AND STOP SALE**

WHAT'S HAPPENING WITH DIAZINON OUTDOOR USE PRODUCTS?

As part of an agreement between the U.S. Environmental Protection Agency (EPA) and diazinon manufacturers to phase out and eliminate all residential uses of the insecticide diazinon, retailers can no longer sell diazinon outdoor non-agricultural use products, including home lawn and garden products, after December 31, 2004. It

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² US Geological Survey, Baltimore MD

Contact: pjphilli@usgs.gov

Why should we be concerned about Diazinon?

- One of the most frequently detected pesticides in urban streams
- Widely used lawn insect control
- Concentrations exceeded benchmark levels for protection of aquatic life

Diazinon/Chlorpyrifos Phaseout

- Began in 2002
- Completed in 2004

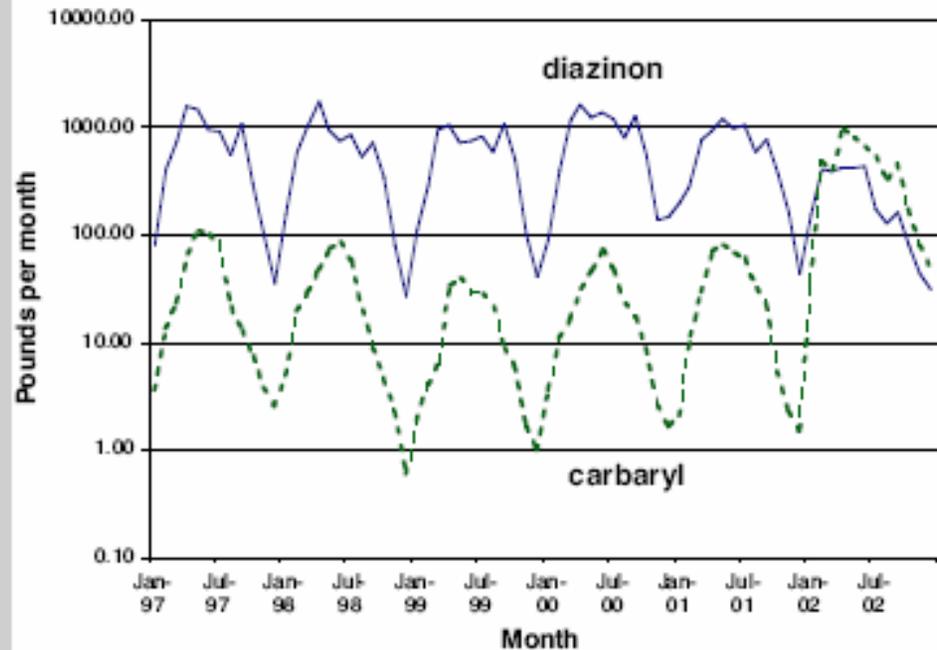


Figure 1. Monthly Sales of Diazinon (solid line) and Carbaryl (dashed line) in pounds of active ingredient. Sales are reported for large hardware/home improvement stores in King County, Washington.

Pesticides Included In Trend Analysis

INSECTICIDES

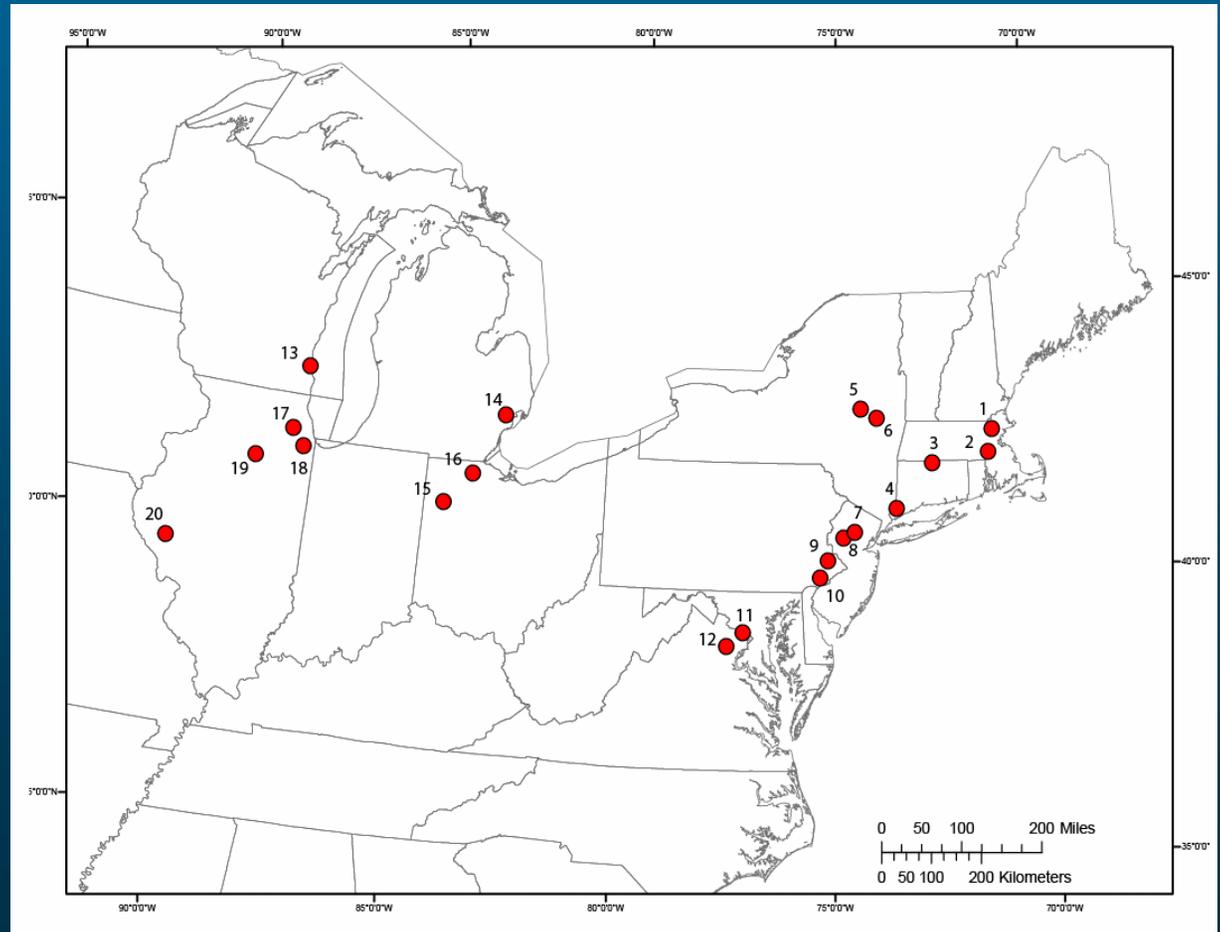
- Diazinon, Chlorpyrifos (decreasing)
- Carbaryl (increasing?)
- Malathion (no change)

HERBICIDES

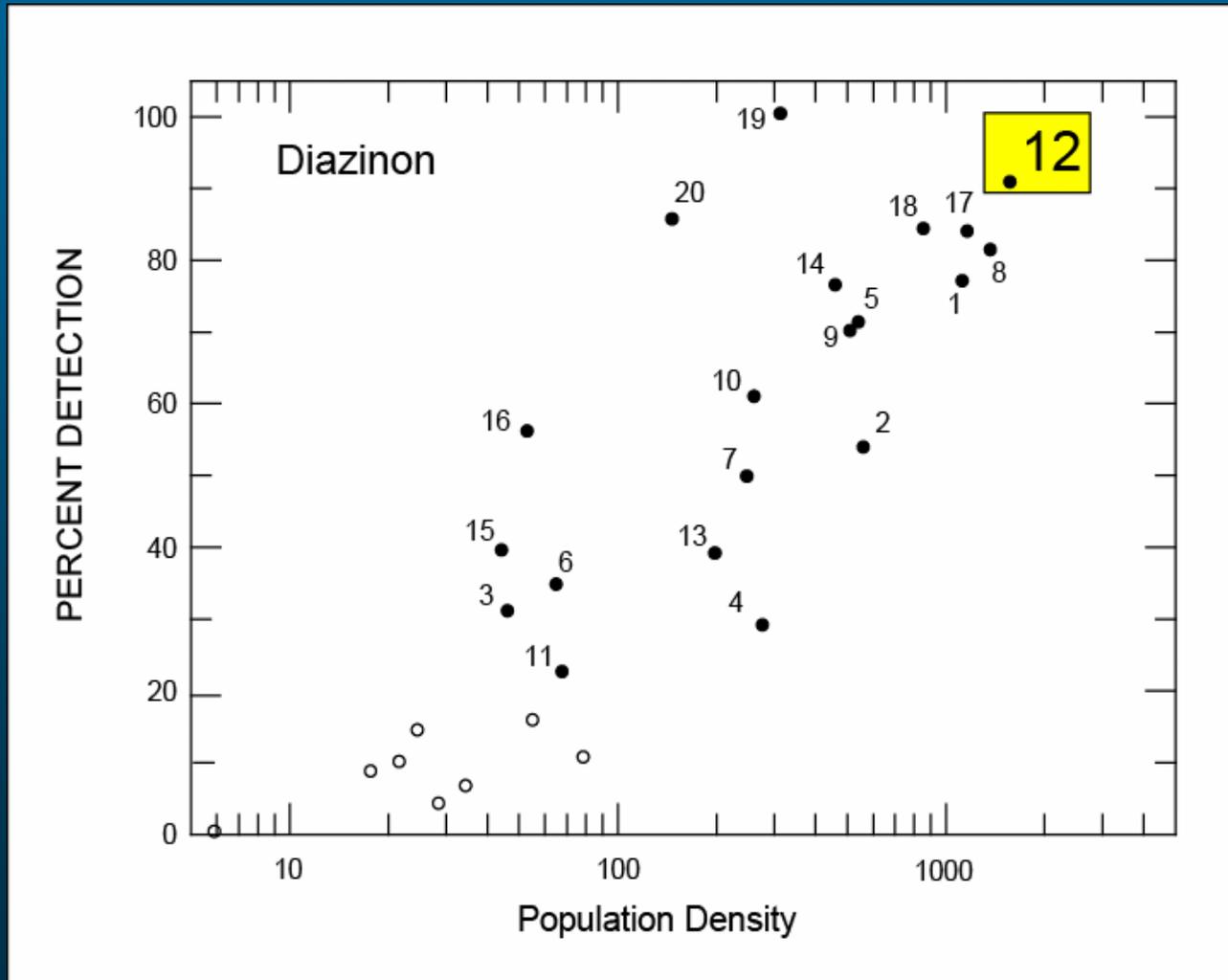
- Prometon, Simazine (no change)

NAWQA Trends Network in Northeast US

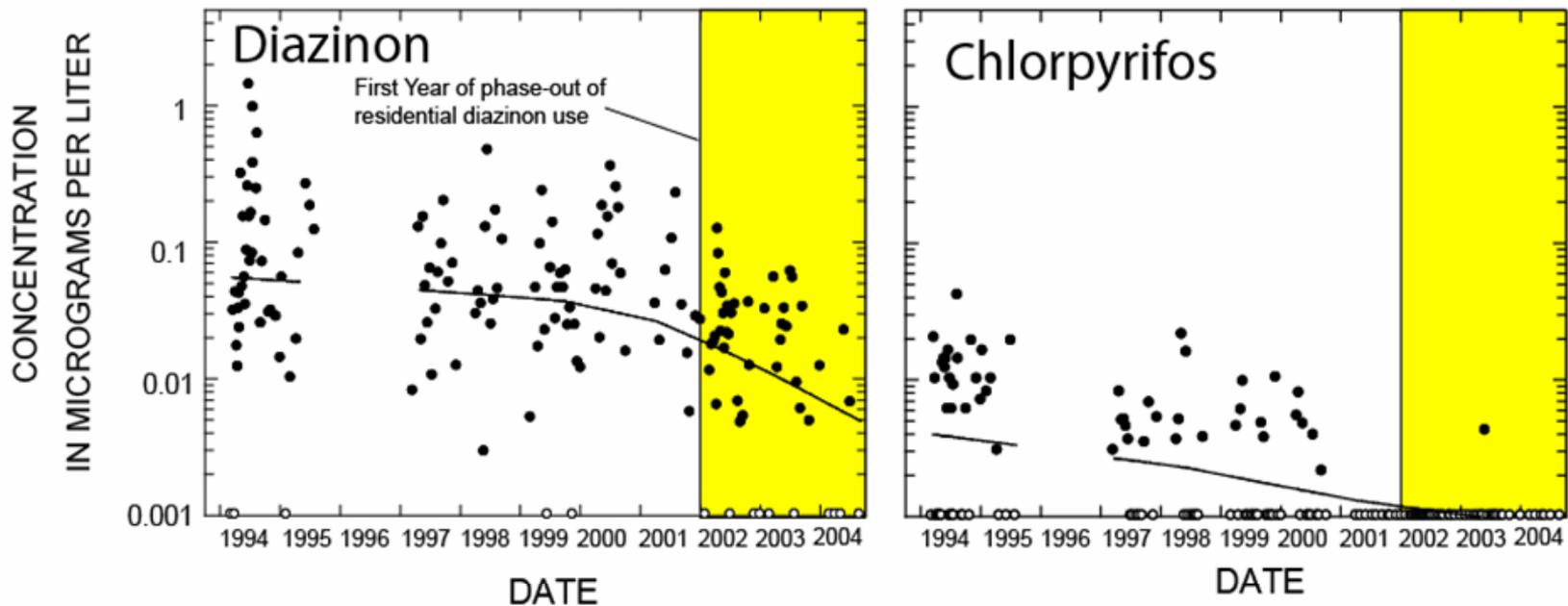
20 sites used
to analyze
Diazinon trends



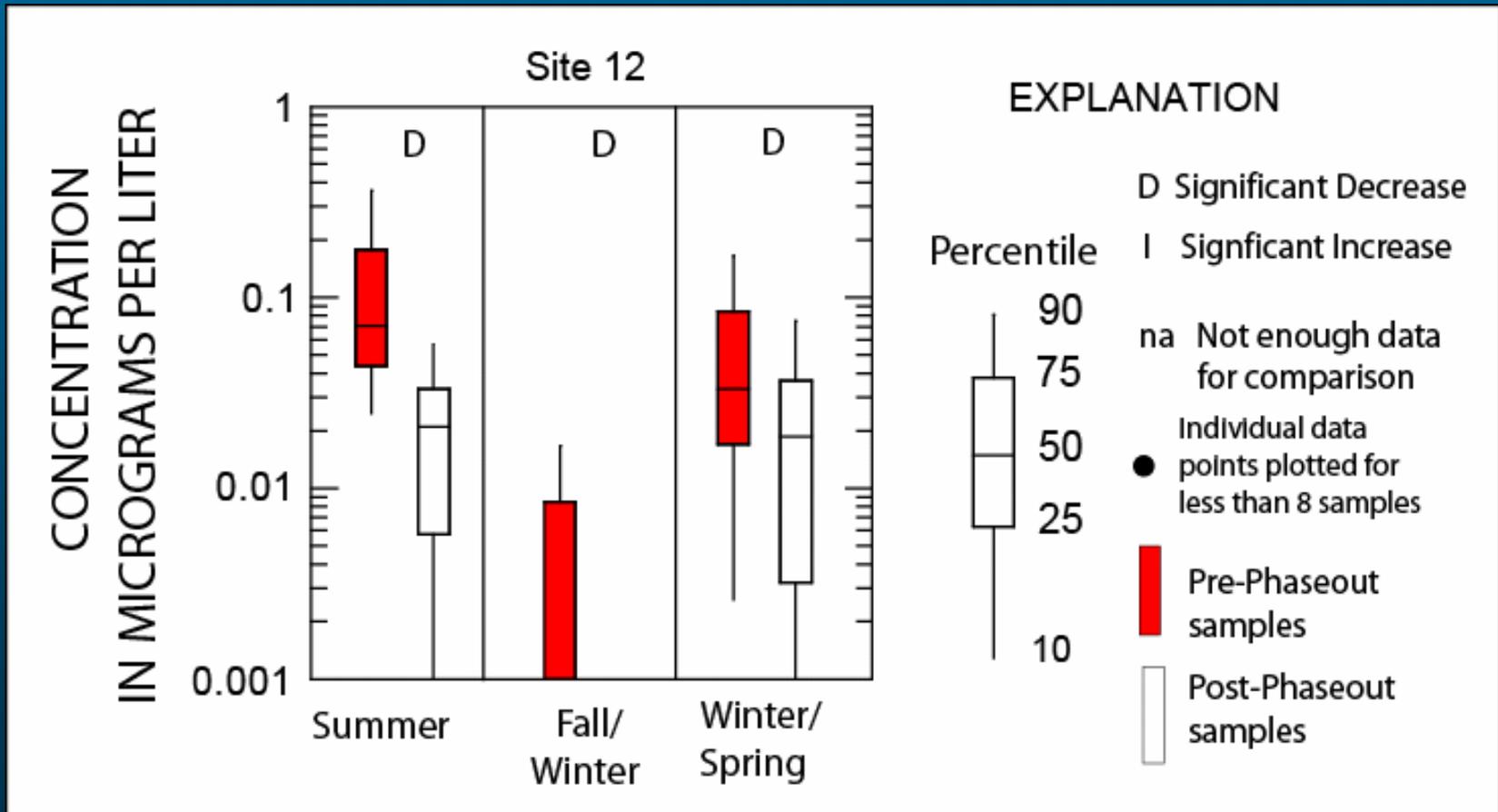
Diazinon From Urban Sources



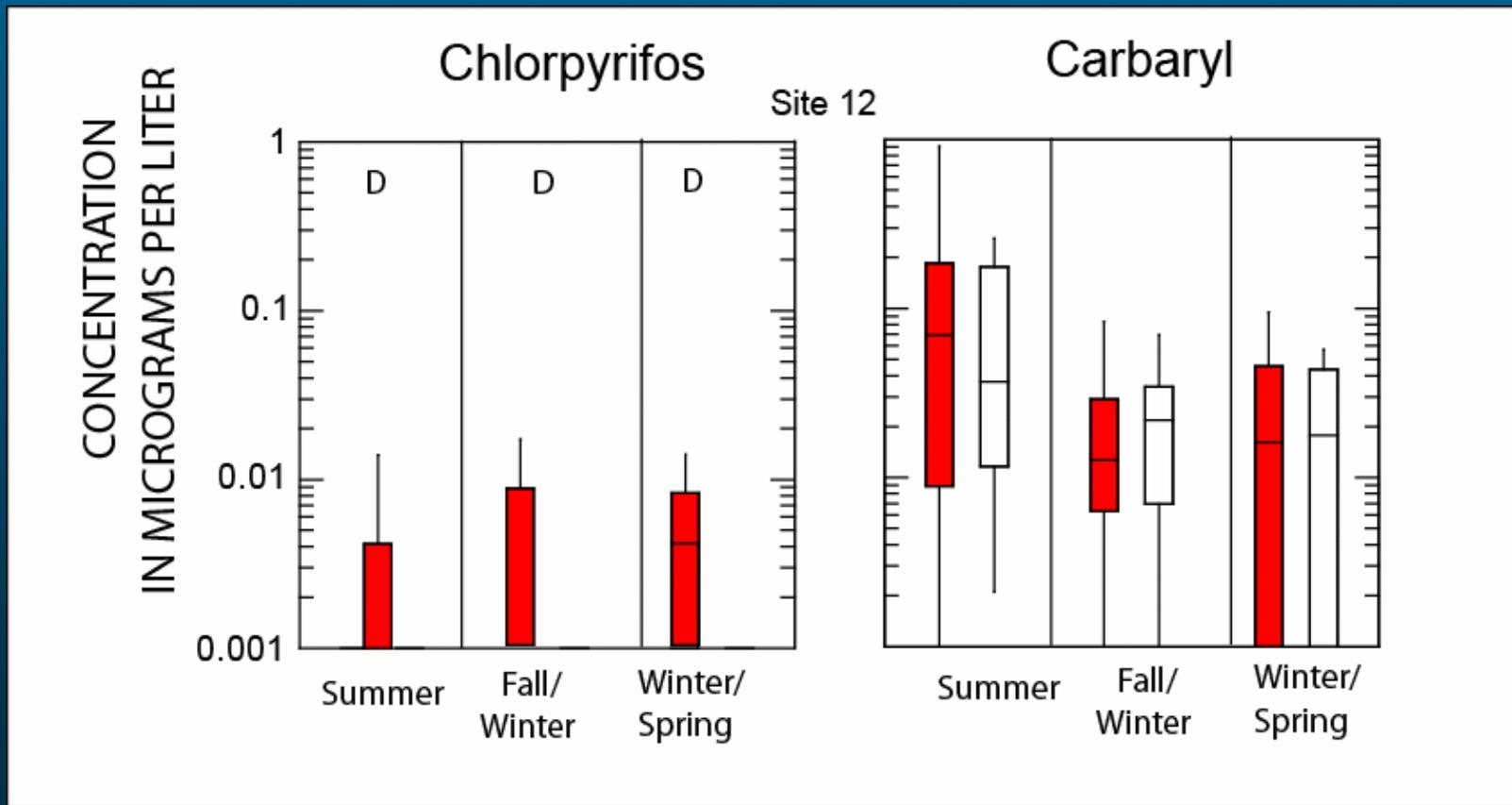
Apparent Decreasing Trends for Diazinon, Chlorpyrifos Concentrations at Accotink Creek, Virginia



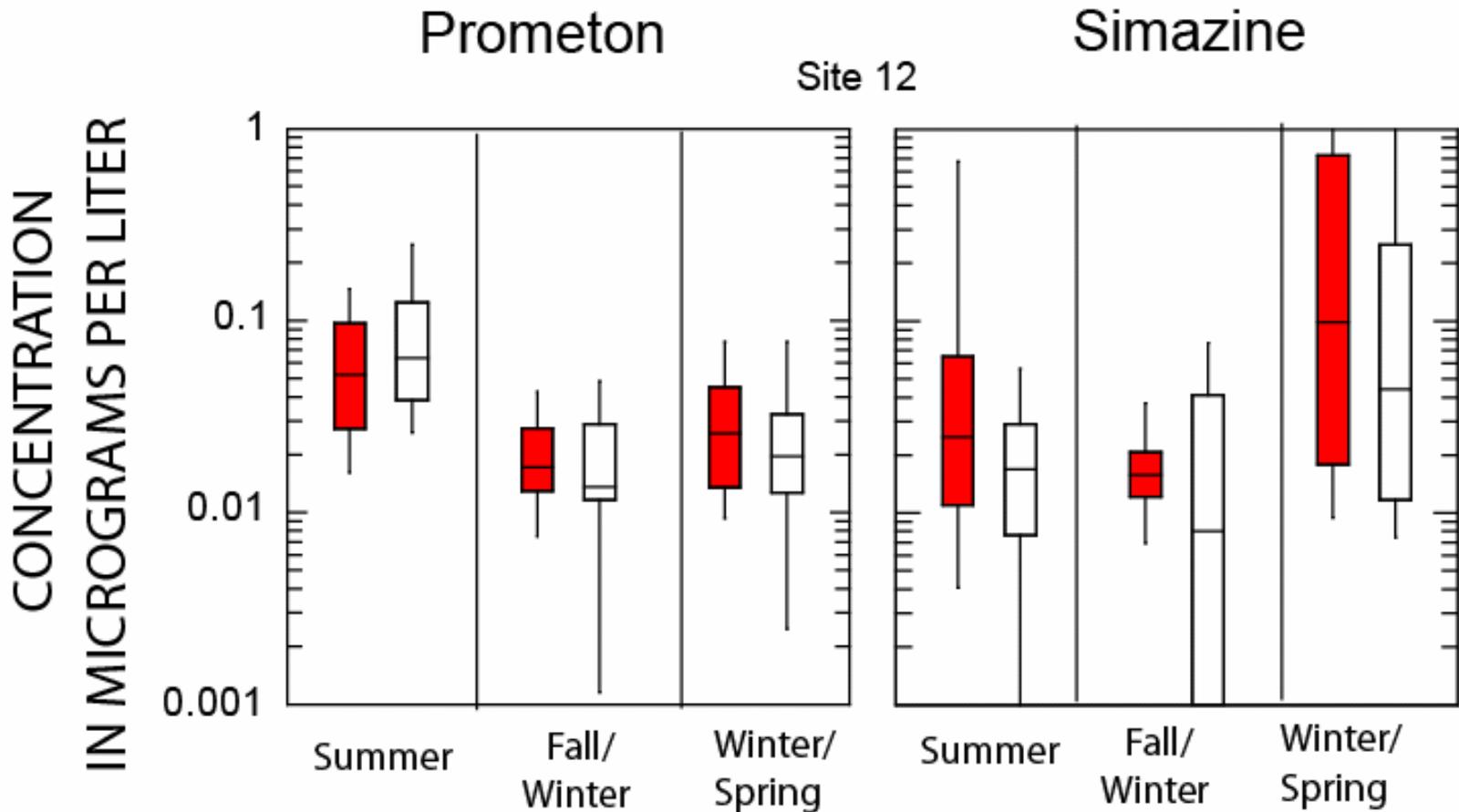
Diazinon Decreased after Phaseout



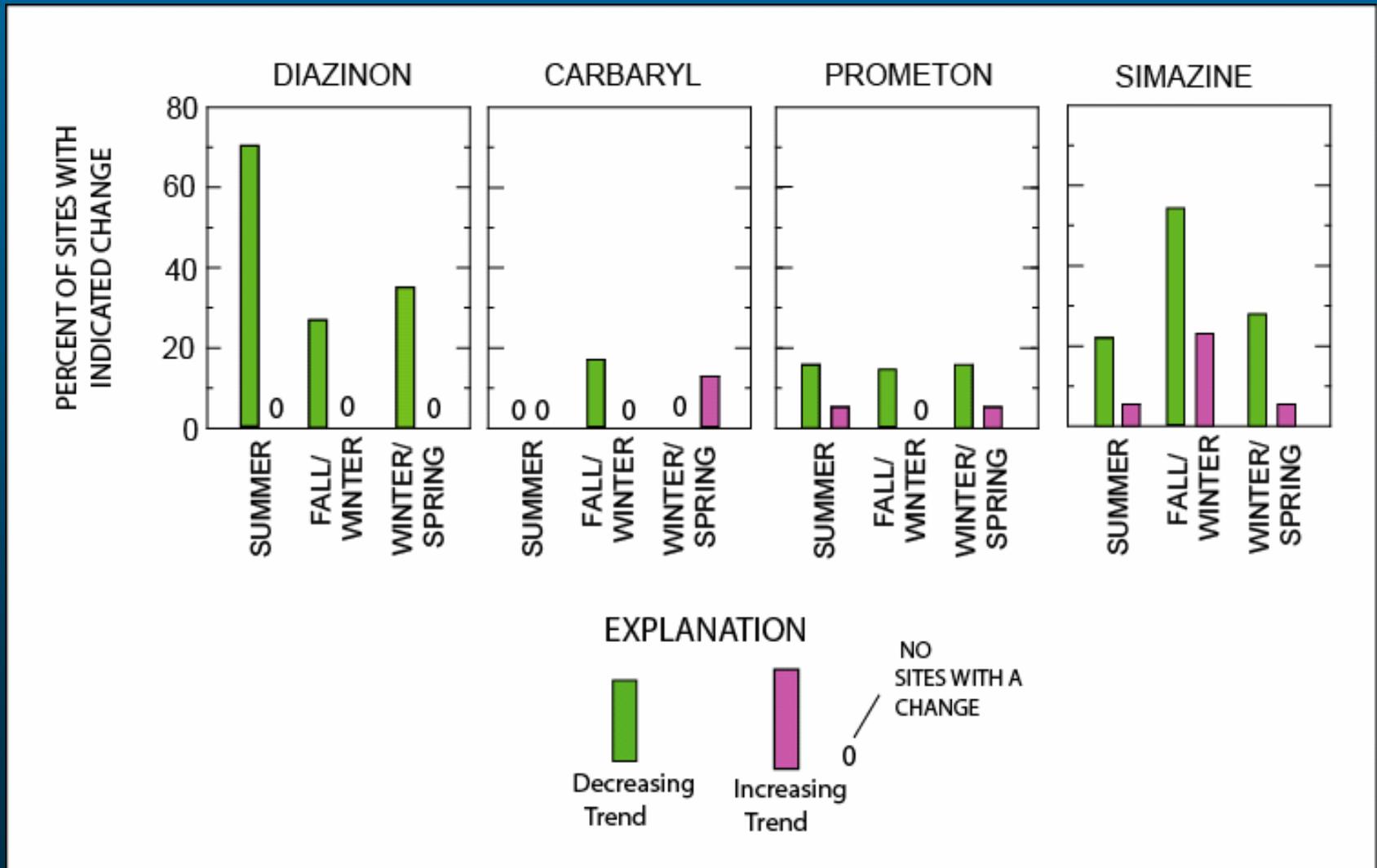
Chlorpyrifos Decreases, Carbaryl has no change



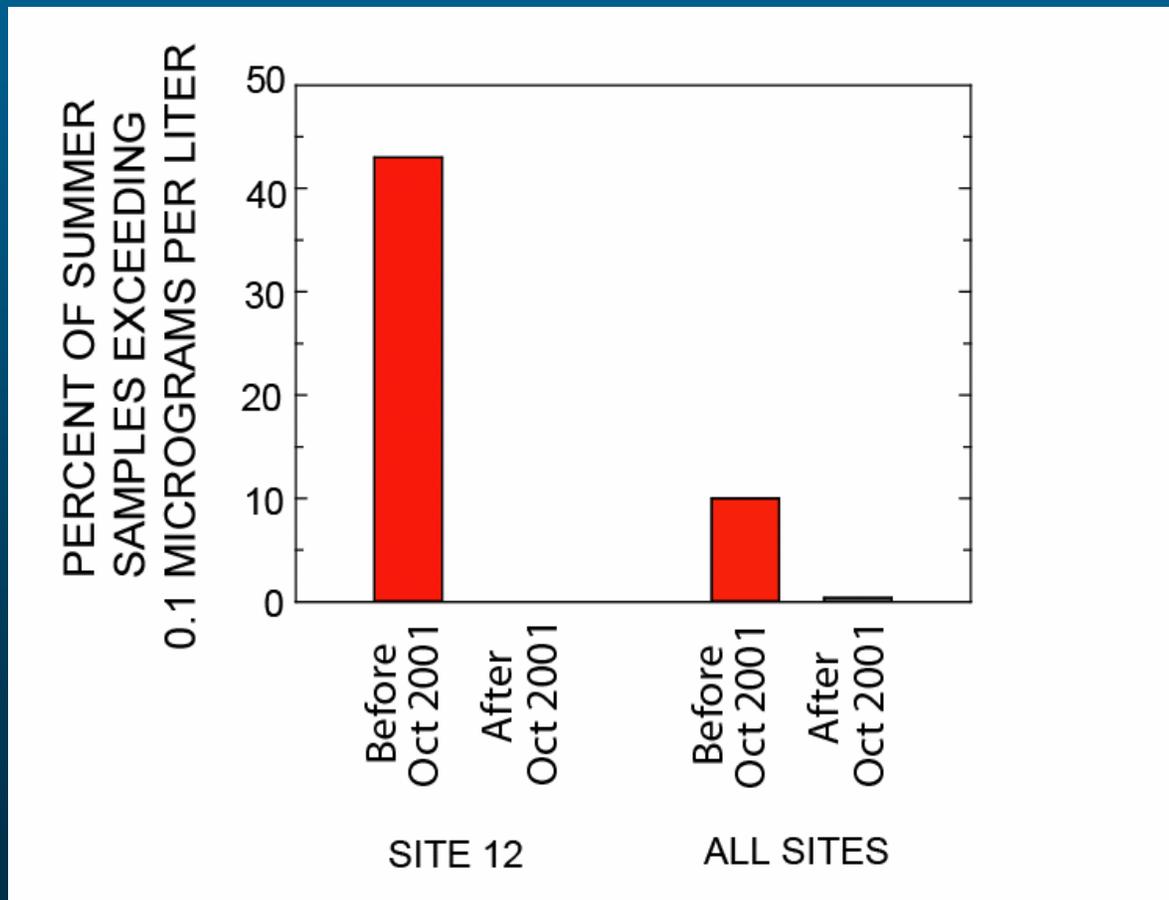
No Step Trends in Herbicides



Comparison of Step Trends at 20 Sites



Decrease in Exceedence of Diazinon Chronic Benchmark Level



Changes Due to Phase Out

- Diazinon Decreases of 50% or more during summer
- Near-elimination of chlorpyrifos
- No change in Carbaryl
- No evidence of regional herbicide changes

Future Questions

- Will we see improvement in urban aquatic communities?
- What is replacing Diazinon?
Not Carbaryl in Northeast
Imidacloprid? Pyrethroids?
- Will we be able to see further changes?

Acknowledgements

Data collected by NAWQA Study Units

