NCAP:
Our work in protecting salmon and advancing sustainable practice in farming

Northwest Center for Alternatives to Pesticides

March 2015

NCAP Mission

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.

Pesticide hazards to human health

Of the 27 of the most commonly used pesticides…

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)*

(Ref. #2 www.epa.gov/oppbead1/pestsales/01pestsales/usage 201_2.html#3_6)

NCAP then and now!

- *8 staff*
- *17,000 supporters*

Healthy Wildlife and Water

Questions to Ask Your Nursery

Northwest Center for Alternatives to Pesticides

Neonicotinoids

Scientific studies have shown that a newer class of pesticides, called neonicotinoids (neonics for short), are a major factor in pollinator declines.

Both systemic and persistent, neonics continue to affect bees long after a spray through soil absorption.

Check with your nursery before buying plants to ensure that your bee-friendly flowers aren't killing pollinators.

Questions to Ask

1. Are your plants or seeds treated with neonicotinoids?
2. Do you know which of your suppliers use them?
3. Would you consider removing neonicotinoid applications and treated plants from your shelves?

Neonicotinoid Pesticide Active Ingredients:

Acetamiprid, Clothianidin, Dinotefuran, Imidacloprid, Thiacloprid, Thiamethoxam

Is your nursery neonic free? Let us know!
INFO@PESTICIDE.ORG
For more information:
WWW.PESTICIDE.ORG

Clean Water for Salmon

Salmon are a vital and historic part of ecology, food and culture throughout the Northwest. Sadly, the survival of these fish is threatened by pesticide pollution.

Help NCAP save wild Salmon, Steelhead, and other aquatic wildlife by supporting our work to ensure the strong enforcement of laws meant to protect endangered fish from pesticides.

Steelhead trout, Columbia River, Oregon

Northwest Center for Alternatives to Pesticides
www.pesticide.org | 541-344-5044 | info@pesticide.org

FSC 80

Healthy Food and Farms

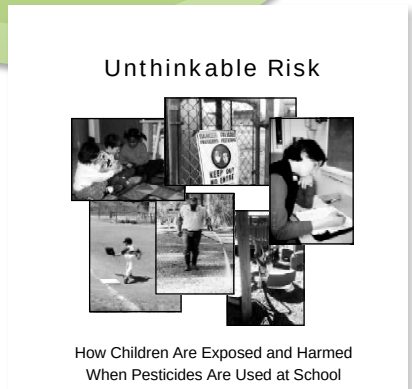
Promoting and expanding organic and sustainable food production at the state and federal levels..

How We Work

Facilitating Technical Assistance

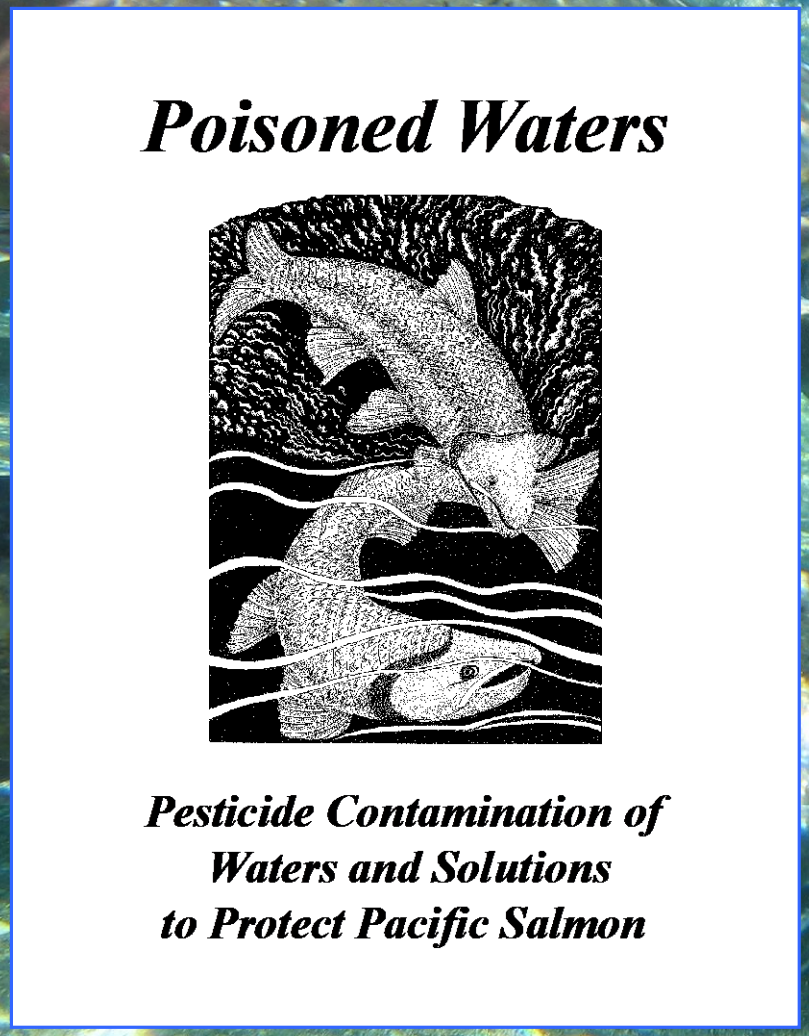
Education and Outreach

Policy Watchdog and Advocate



Policy watchdog: Healthy Wildlife and Water

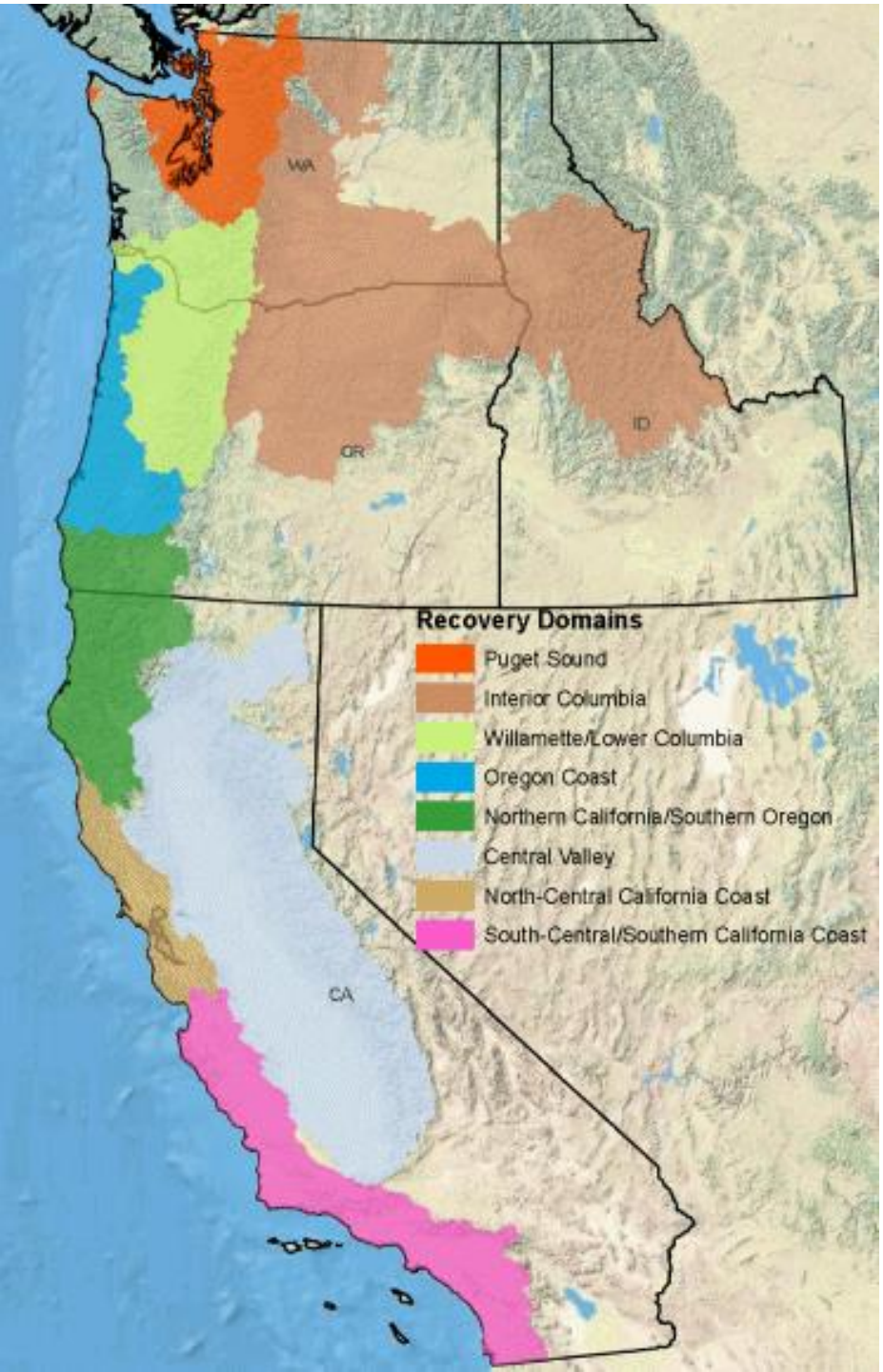
Our Work with Salmon: Initiated in 2002 Prompting the EPA to Consider Endangered Species in Pesticide Registration Process



Current and Former Partners:

- Washington Toxics Coalition,
- Earthjustice
- Pacific Coast Federation of Fishermen's Associations
- Institute for Fisheries Resources
- Defenders of Wildlife
- Northern California Council of the Federation of Fly Fishers
- Turtle Island Restoration Network

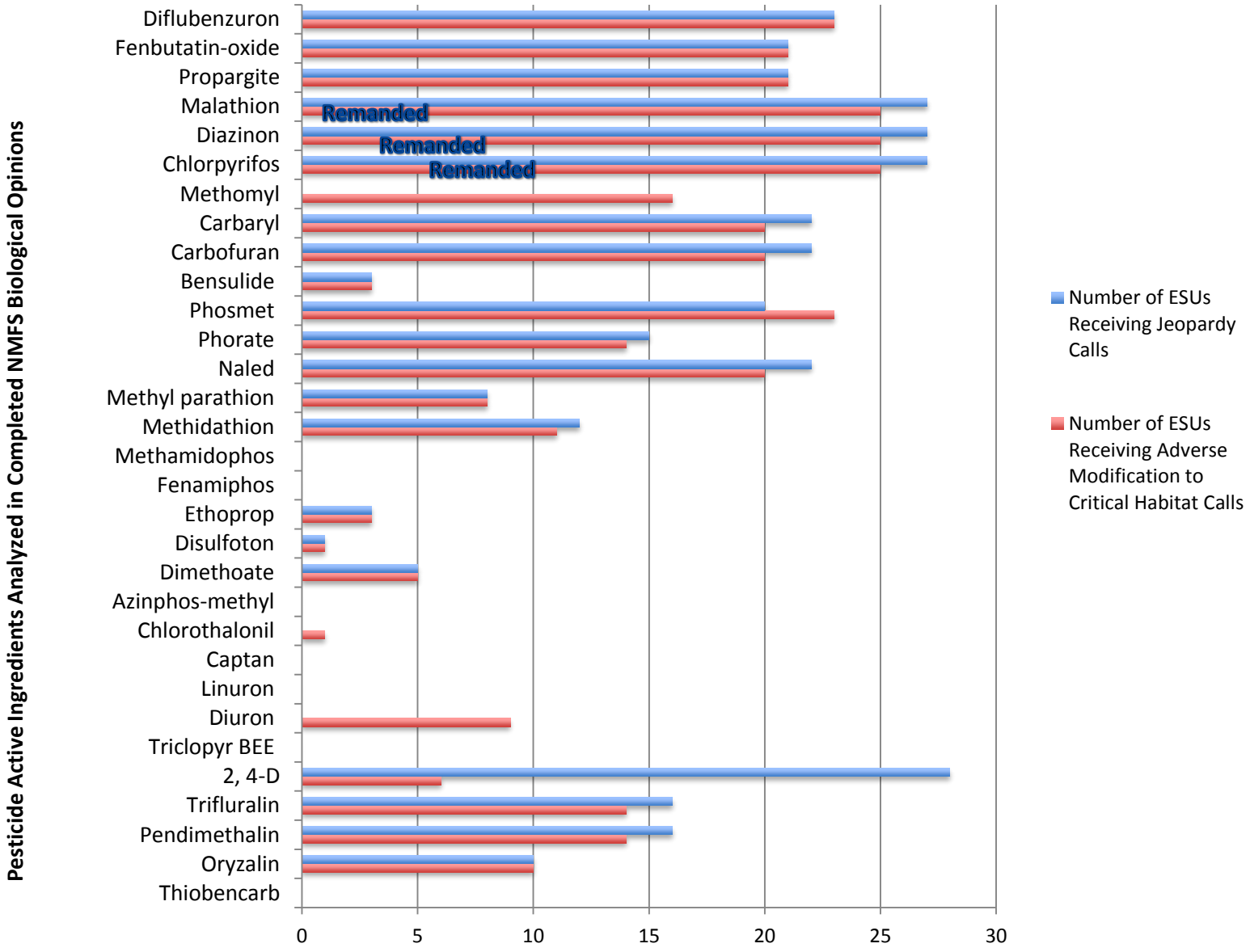
Photo: Courtesy of Pacific Northwest National Laboratory



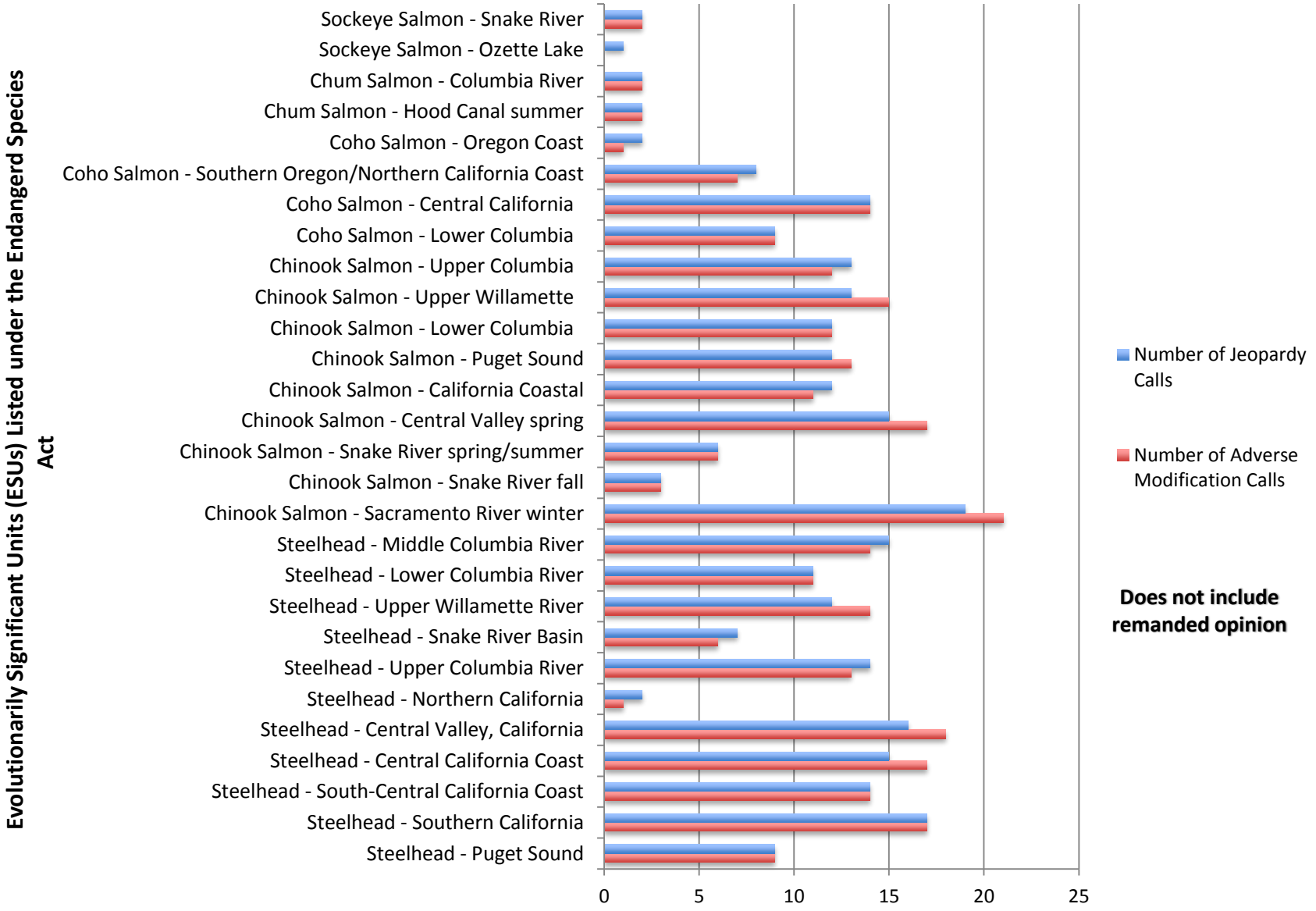
Endangered and Threatened Fish:

-17 listed Salmon ESUs
-11 listed Steelhead ESUs
-8 Recovery Domains

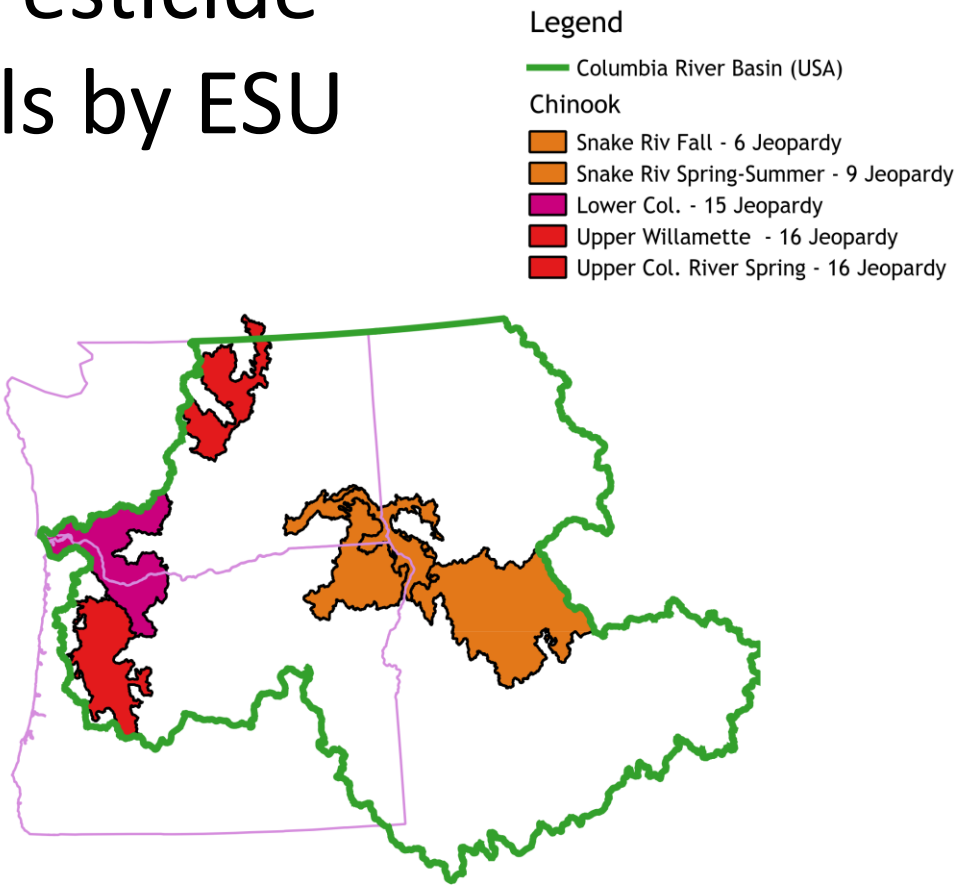
Jeopardy or Adverse Modification Calls to Listed Salmonids Due to Pesticides National Marine Fisheries Service



Jeopardy and Adverse Modification Calls Due to Pesticides, by ESU

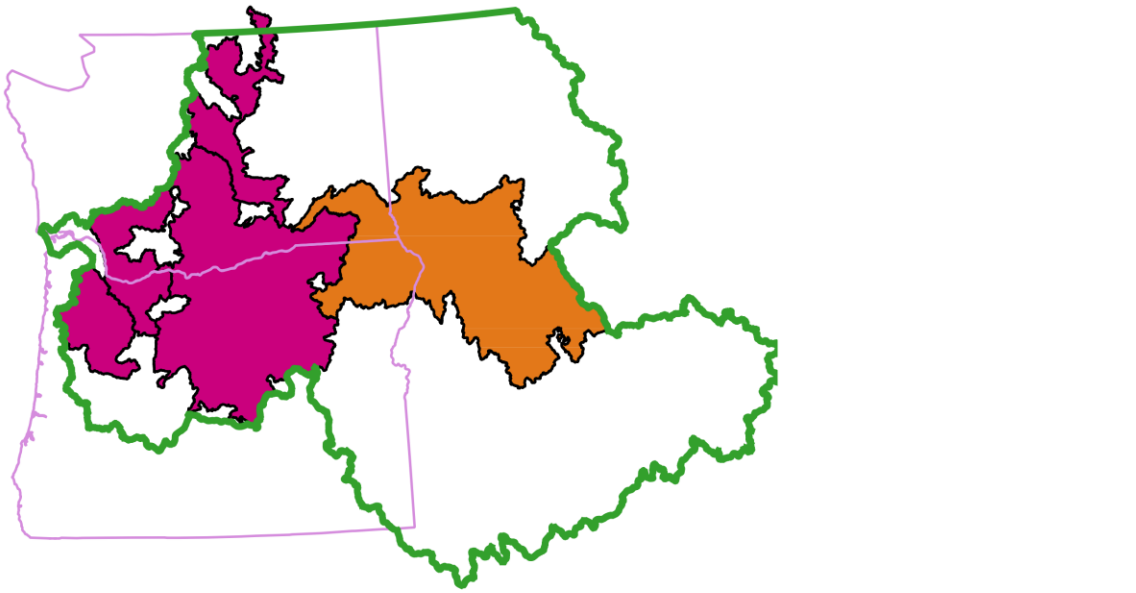


ESA-Listed Chinook in the Columbia Basin: Number of Pesticide Jeopardy Calls by ESU



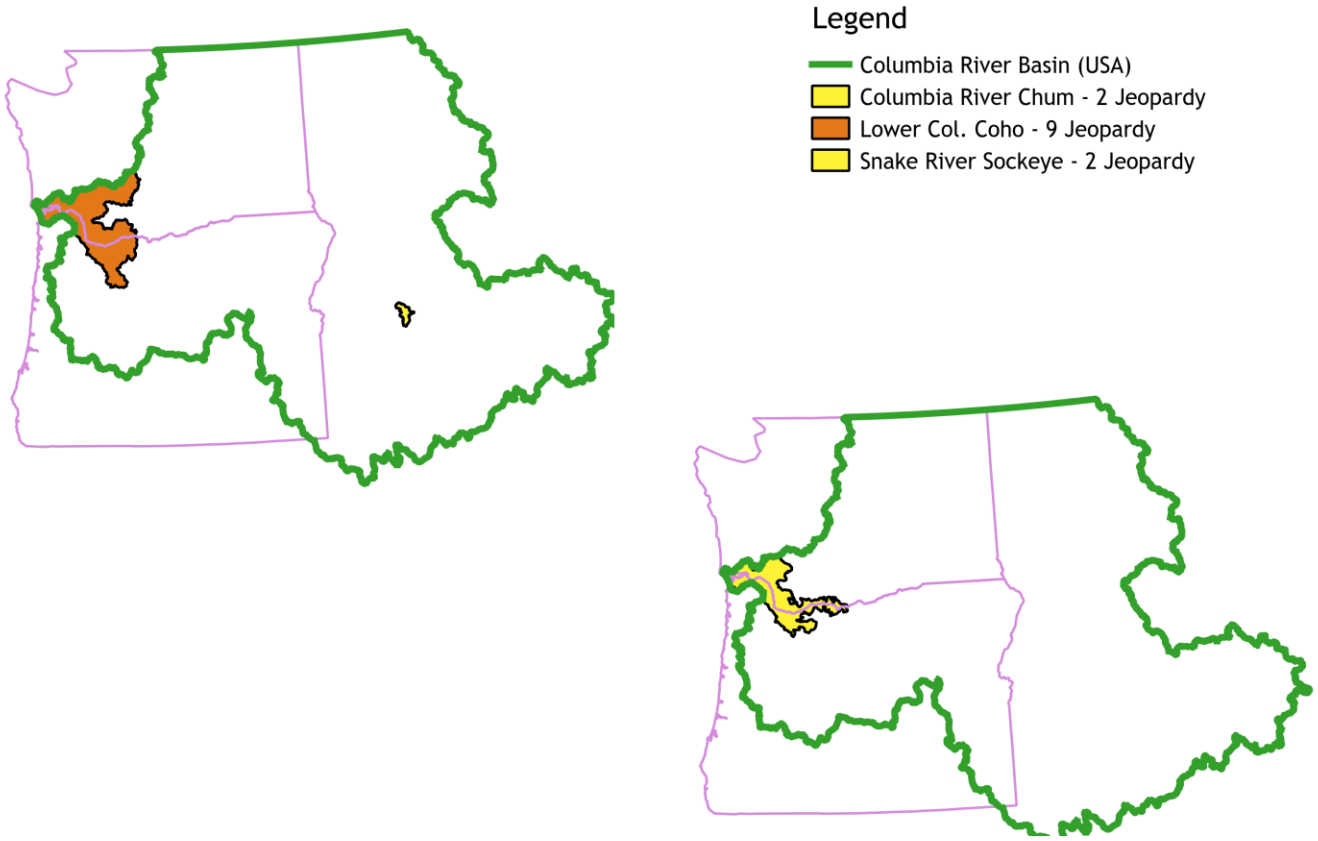
Derived from Final Biological Opinions completed on 31 pesticides by National Marine Fisheries Service, 2008-2015. Does not include first (remanded) Biop.

ESA-Listed Steelhead in the Columbia Basin: Number of Pesticide Jeopardy Calls by ESU



Derived from Final Biological Opinions completed on 31 pesticides by National Marine Fisheries Service, 2008-2015. Does not include first (remanded) Biop.

ESA-Listed Coho, Chum, and Sockeye in the Columbia Basin: Number of Pesticide Jeopardy Calls by ESU



Derived from Final Biological Opinions completed on 31 pesticides by National Marine Fisheries Service, 2008-2015. Does not include first (remanded) Biop.

Applying Pesticides
Not All Requirements are on the label

Salmon Mapper:

http://www2.epa.gov/endangered-species/salmon-mapper - background

Buffers:

Required for Nine Pesticides

United States Environmental Protection Agency

Learn the Issues | Science & Technology | Laws & Regulations | About EPA

Search EPA.gov

Contact Us Share

Endangered Species

You are here: EPA Home » Endangered Species » Salmon Mapper

Salmon Mapper

"Salmon Mapper" – Pesticide Use Limitations in California, Oregon and Washington State

Background | Online Help | Viewing Options

The "Salmon Mapper" GeoPlatform Application is intended to assist pesticide users' understanding of the spatial extent of certain pesticide use limitations to protect endangered or threatened salmon and steelhead in:

- California;
- Oregon; and
- Washington.

The hydrologic data used in this interactive map application were downloaded from the:

- National Hydrography Dataset (NHD) in California, managed by the U.S Geological Survey (USGS); and
- StreamNet Dataset Exit in Washington and Oregon, managed by the Pacific States Marine Fisheries Commission.

Pesticide users should visit this site prior to the time of pesticide use to determine whether the Court-ordered limitations apply to your use of a specific pesticide.

To determine specific waters and pesticide use limitations that may apply to your use of a pesticide, from the list at the right:

1. Select the state in which you intend to apply a pesticide;
2. Select the specific pesticide active ingredient you intend to use; and
3. Click the "Submit" button.

Questions regarding the "Salmon Mapper" may be submitted by email to EPA's Endangered Species mailbox.

Salmon Mapper Application

On-line Help

State:

Select a state
California
Oregon
Washington

Pesticide: **(optional)**

Select a pesticide
1,3-dichloropropene
bromoxynil
carbaryl
chlorpyrifos
diazinon
diflubenzuron
fenbutatin oxide
malathion
methomyl
metolachlor
prometryn
propargite

Submit | Clear Form

U.S. ENVIRONMENTAL PROTECTION AGENCY

Counties in Oregon with Court-Ordered Limitations

Share

Endangered Species Protection Program

Northwest Center for Alternatives to Pesticides v. EPA

Washington Toxics Coalition v. EPA

Salmon Mapper

Online Help

Contact Us

Pesticide Use Limitation applies in these Counties for: malathion

(click on the county in which you intend to apply this pesticide) **OR** Enter location name

Counties in Washington with Court-Ordered Limitations

Share

Endangered Species Protection Program

Northwest Center for Alternatives to Pesticides v. EPA

Washington Toxics Coalition v. EPA

Salmon Mapper

Online Help

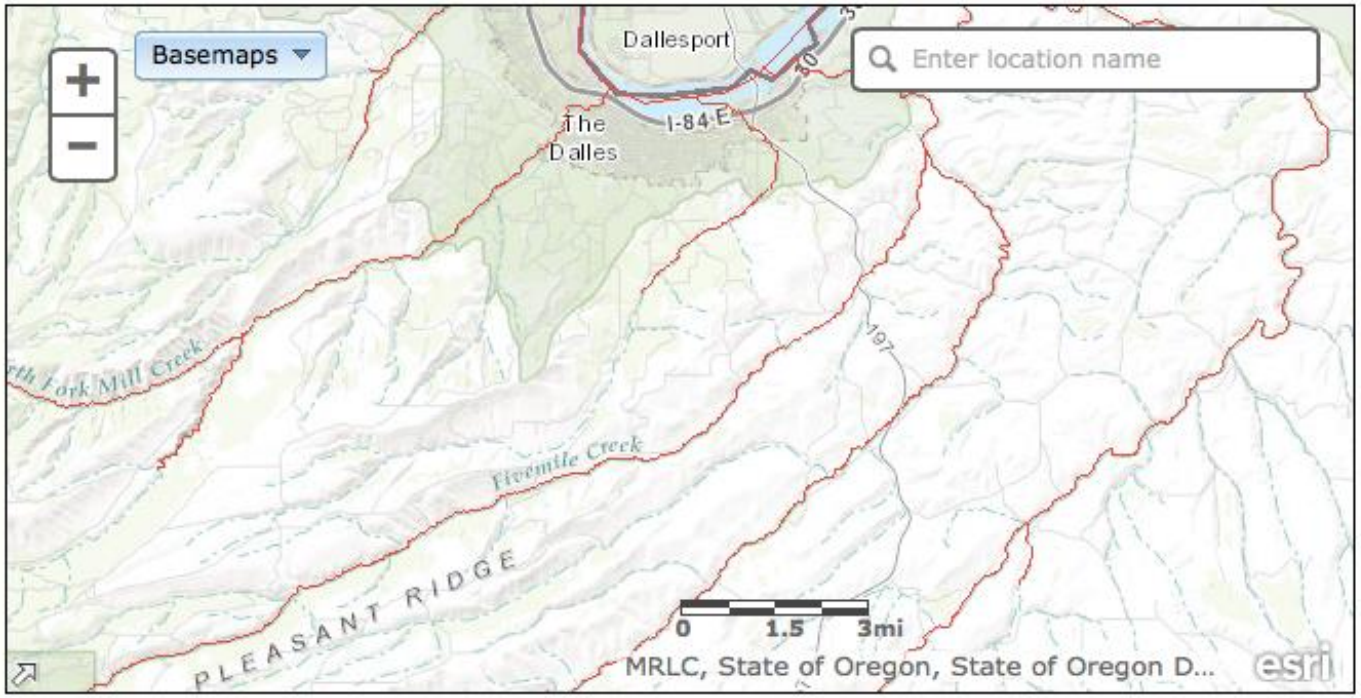
Contact Us

Pesticide Use Limitation applies in these Counties for: malathion

(click on the county in which you intend to apply this pesticide) **OR** Enter location name

U.S. ENVIRONMENTAL

Court-Ordered Pesticide Limitations



Pesticide malathion

Segments with Limitations

Limitation 1

County

State

(Navigation note: Press the "shift" key click and drag to draw a rectangle arou an area and zoom in.)

malathion

Limitation for malathion

- Do not use within 20 yards of salmo supporting waters for ground applicati or for any applications of a granular formulation.

- Do not use within 100 yards of salm

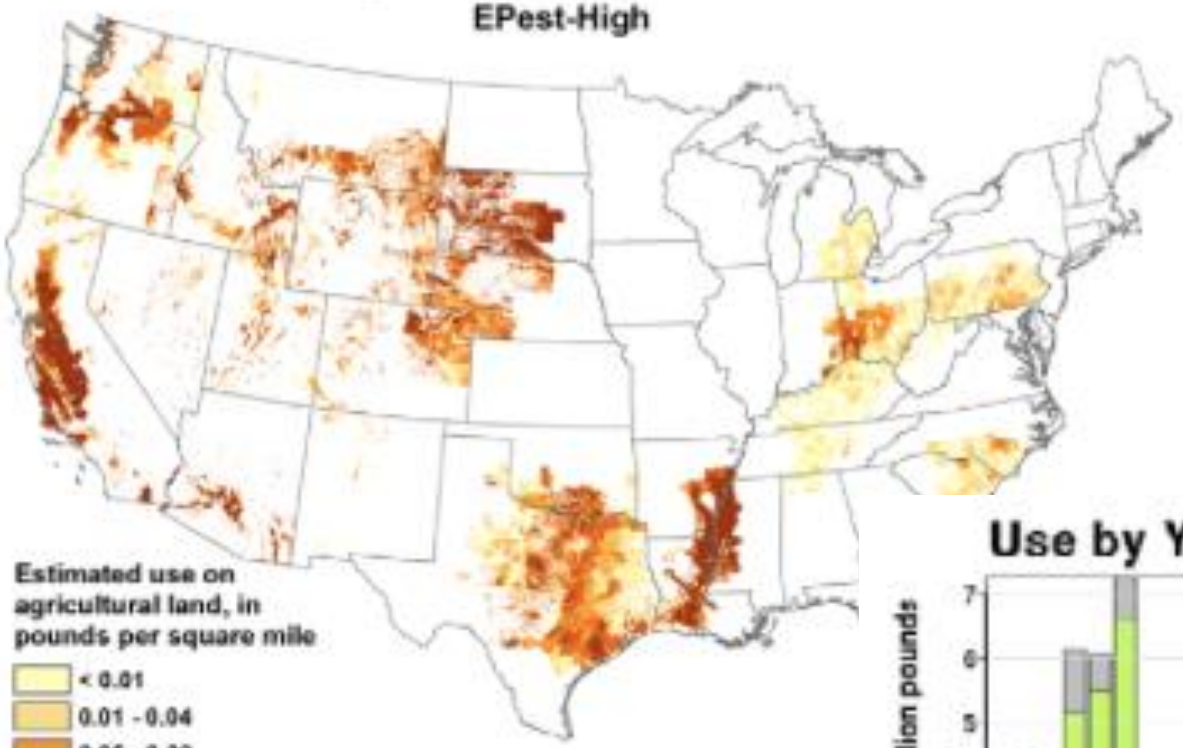
Select another pesticide

◀ 2011 ▶

Epest-High
Epest-Low

Estimated Agricultural Use for Malathion , 2011

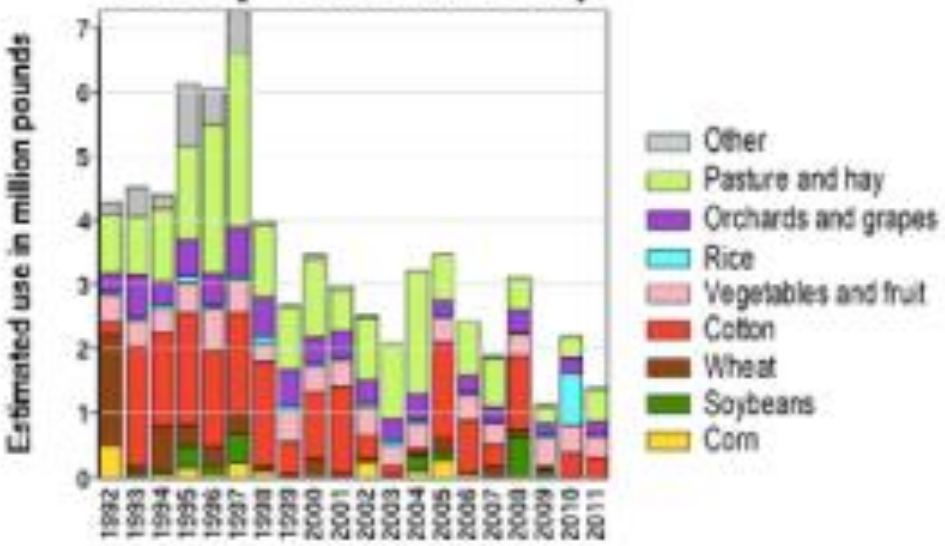
EPest-High



Estimated use on agricultural land, in pounds per square mile

- < 0.01
- 0.01 - 0.04
- 0.05 - 0.22
- 0.23 - 1.13
- > 1.14
- No estimated use

Use by Year and Crop



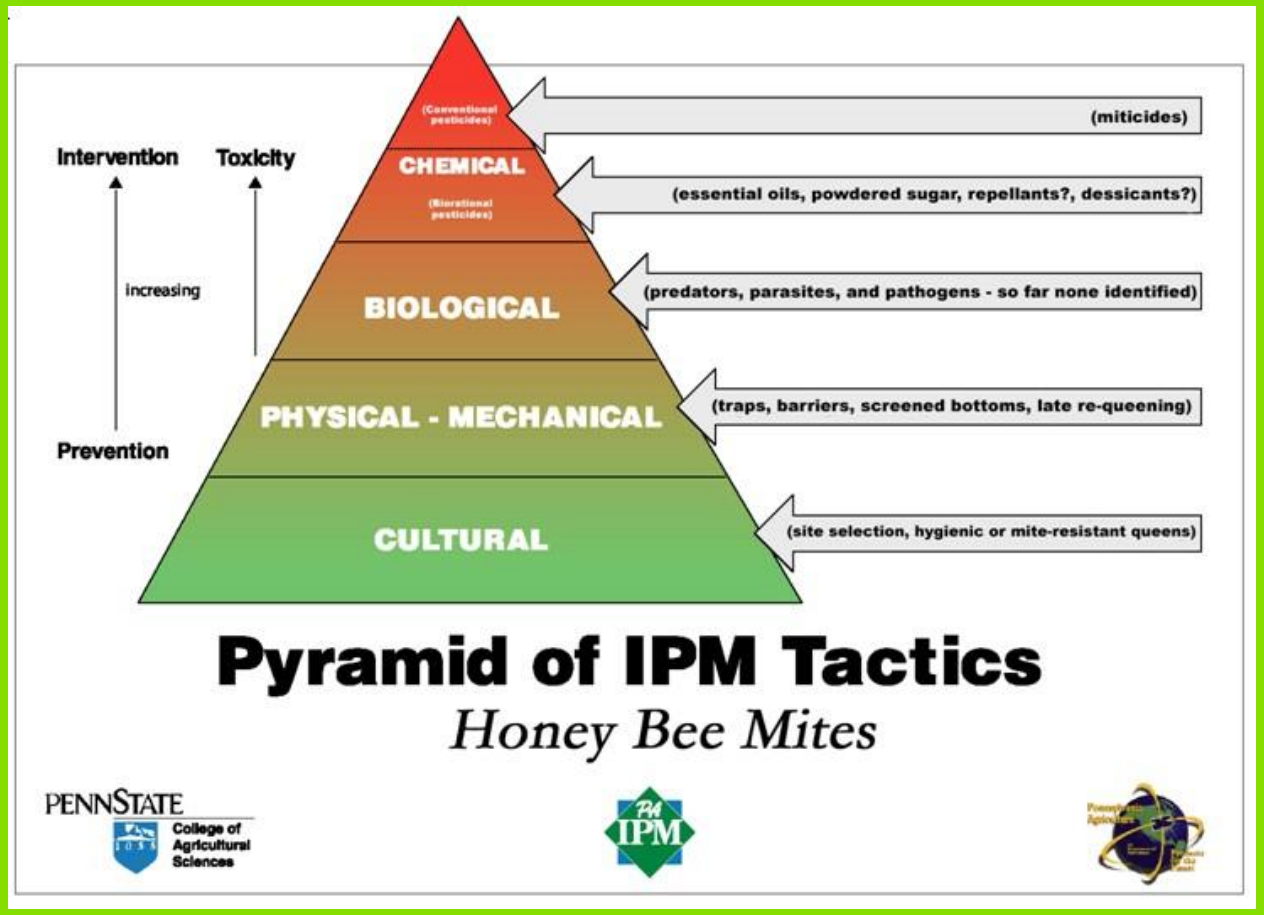
Heading in the Right Direction?

- Wholly cancelled active ingredients include: molinate, methyl parathion, methidathion, disulfoton, methamidophos, fenamiphos, azinphos-methyl. Partially cancelled active ingredients include: carbofuran, chlorpyrifos, malathion, methomyl, diazinon, phosmet, ethoprop, dimethoate, and pendimethalin).

- Still, according to USGS NAWQA program data gathered between 2002-2011, more than 60% of sampled streams in agricultural areas contained pesticides that exceeded at least one chronic aquatic-life benchmark (more than 90% in urban areas).

Technical Assistance and IPM in Action: Healthy Food and Farms

Safer Approaches …



Organic Methods

and

Integrated Pest Management

IPM

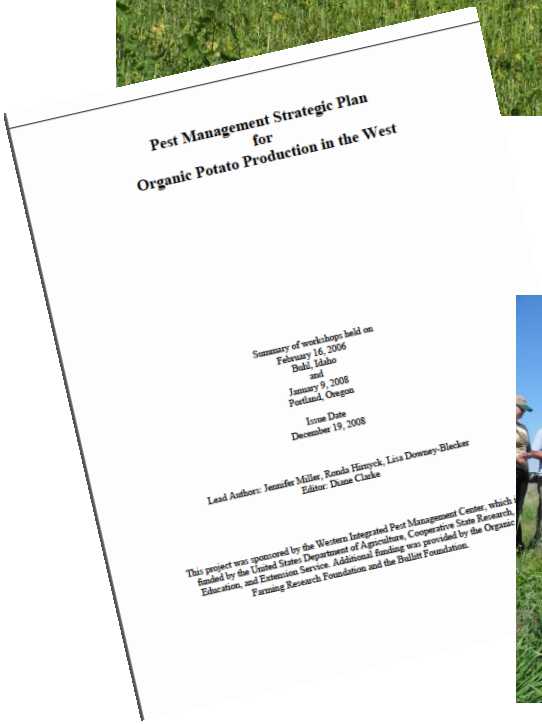
Supporting Farmer-to-Farmer Networking

Advancing Alternatives to Pesticides

Research/Demos

Education

Advocacy



Pest Management Strategic Plan
for
Organic Potato Production in the West

Summary of workshops held on
February 16, 2006
Buhl, Idaho
and
January 9, 2008
Portland, Oregon

Issue Date
December 19, 2008

Lead Authors: Jennifer Miller, Ronda Hinyck, Lisa Downey-Blecker
Editor: Diane Clarke

This project was sponsored by the Western Integrated Pest Management Center, which is
funded by the United States Department of Agriculture, Cooperative State Research,
Education, and Extension Service. Additional funding was provided by the Organic
Farming Research Foundation and the Bullitt Foundation.

Pesticide Intensive Crop

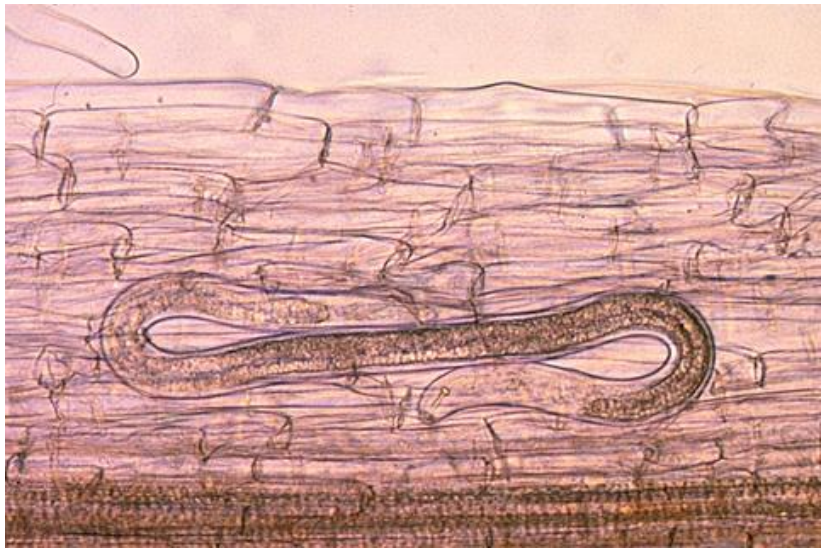
- More pounds of pesticide than any other crop grown in the Northwest

Shoshone-Bannock Tribes: Alternative Cropping Demonstration

Goal – To determine whether green manures are viable alternatives to chemical fumigant use in potato production

Nematode damage

Feeding on plant roots



Damage to tubers

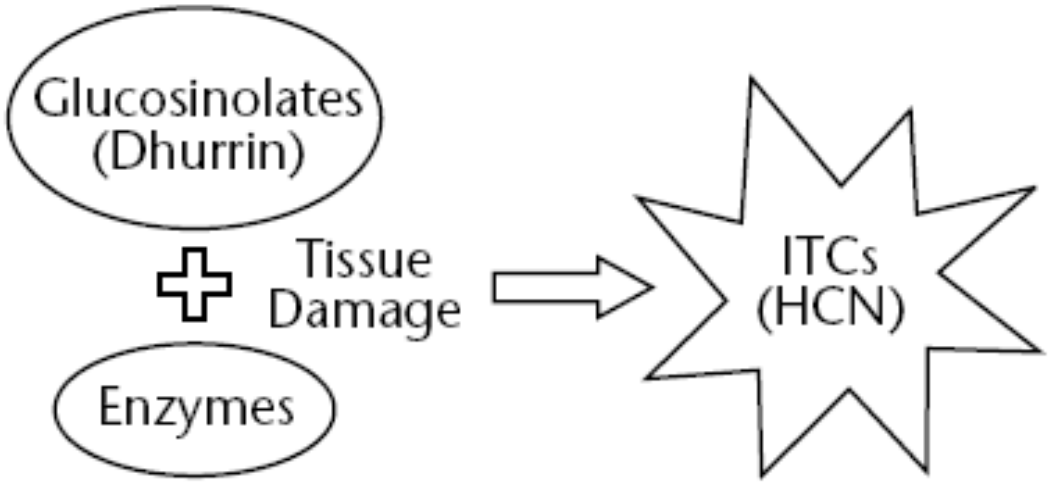

Richard

Andy McGuire, WSU

Before freezing, the mustard is chopped and disked.

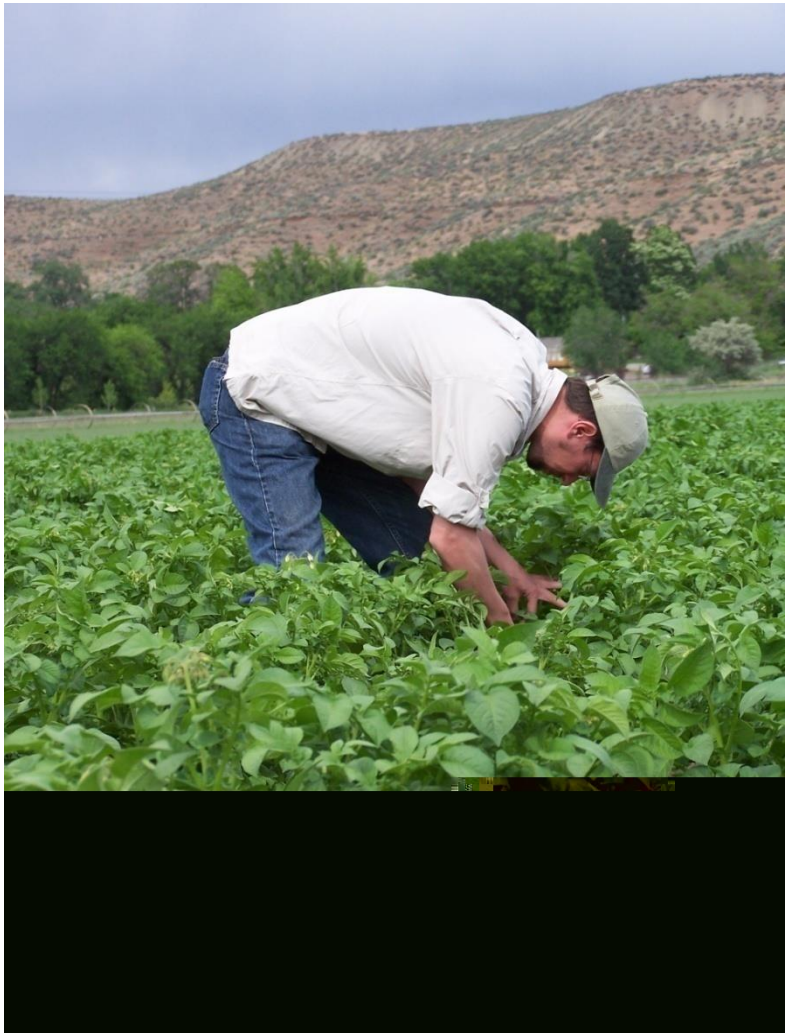
Alternative Practice

Full tissue disruption required for full glucosinolate release



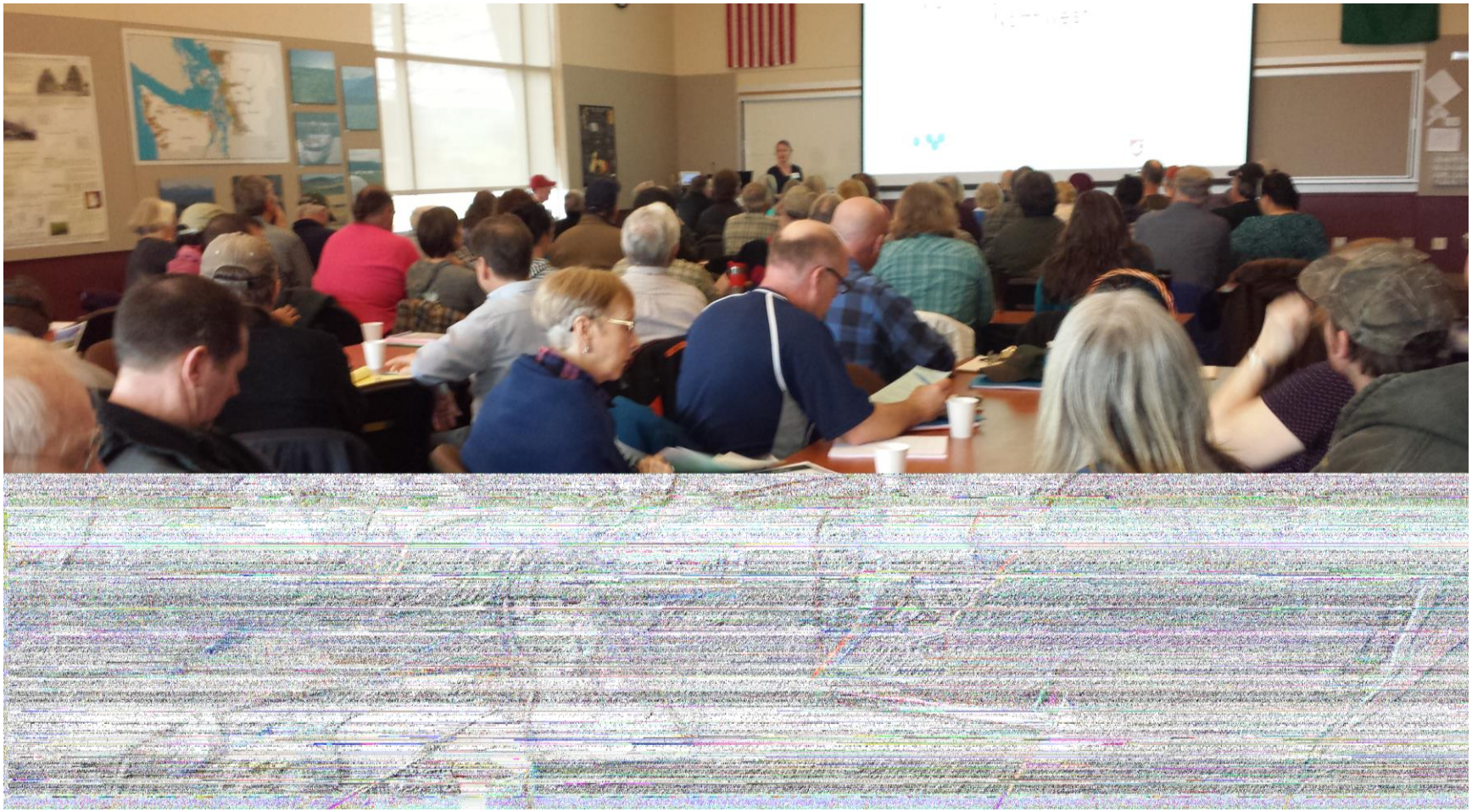
What Potato Growers Are Saying

- See benefits for reducing fumigant use, soil building, and nematode & disease control
- Concerned about time requirements, water usage, and costs
- 3,500 acres planted on Reservation
- Seed sales suggest 40,000 acres in southern Idaho



Partners: Potato and dry bean farmers, University of Idaho researchers, Montana Microbial Products, Certis. Funding: ID State Specialty Crop block grant programs, and ID NRCS CIG grants

Recent Blueberry Workshop: Mummy Berry and Spotted Wing Drosophila, Mt. Vernon, WA



Upcoming Plans

- To combat malathion recent increases (due to appearance of non-native Spotted Wing Drosophila), we are initiating plans to work on organic / less toxic approaches in cherries (east of Cascades) and berries or grapes (Western Oregon) over the next year.

Ingredients for a Successful Farmer/NCAP/Researcher Collaboration

- The project must be farmer driven and focused on finding ecologically sound solutions that work for farmers

- Farmer partners willing to have researchers and partners on farm and to share their findings on farm tours, farm walks, and other educational events

- NCAP (NGO) partner helps facilitate the outreach; write grants; communicate between partners; help fundraise for, and organize the educational events

- Research partner with the right expertise and interest in working on-farm and directly with farmers and with NCAP
- Obtaining funding that benefits and pays for the work of all the partners – researchers, non-profit partner, farmer stipends
- Proper insurance
- Appropriate signed agreements and disclosures about how the information will be used and the roles of each party
- Project outline and timeline; agreements to meet grant reporting and invoicing deadlines
- Sharing credit in publications and publicity
- Outreach plan to widely disseminate the findings to benefit others.

Increasing Farmer Voices

Questions? Comments? How can We Work Together on Common Goals?

Contact Information

Sharon Selvaggio,
M.S., Energy and Resources, UC Berkeley 1991

Program Director,
Healthy Wildlife and Water
sselvaggio@pesticide.org
541-344-7044, Ext. 35

NORTHWEST CENTER FOR ALTERNATIVES TO PESTICIDES