IPM Developments in Oregon

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Introduction

The IPM development and implementation pathway in Oregon is being tuned to be consistent with the goals of the National IPM Roadmap, Smith-Lever 3(d) IPM program priorities, USDA CSREES IPM and NRI grant programs and NRCS/ Farm Bill conservation title funding opportunities. It is also establishing a more stakeholder driven, outcome-based mode of operation.

This is being achieved by

- Establishing a cycle of Pest Management Strategic Plans (PMSP's) and follow-up to address priorities in research, extension & regulatory affairs.
- Development of an implementation program for each PMSP with research and extension faculty at OSU and partners in the state and region.
- Further development of procedures to respond to IPM emergencies (e.g. Sudden Oak Death, blackberry rust, blackflies, potato tuber moth etc.).
- Enhanced resource acquisition for implementation of programs through targeted investments and regional collaboration.
- Development of core areas in the State IPM program (e.g. communication, decision support, risk assessment and mitigation, biologically-based IPM alternatives, application engineering, education, IPM impact assessment and program evaluation) that fill gaps in the full sequence from PMSP to IPM implementation and impact evaluation, and which complement or add value to IPM research, extension and education programs at OSU.

Poster themes

This poster highlights some current themes in the IPM program at Oregon State University, with particular emphasis upon the regional collaborations that we rely upon.

1) Biological Control & Biologically-Based Pest Management

The *Farmscaping for Beneficials* program is using participatory approaches to assist growers in establishing appropriate habitats and resources for beneficial insects (predators, parasites and pollinators) on their own farms. Project partners are the Xerces Society and Oregon Tilth.

Calendula, orache, Alyssum insectary strips, among vegetable crop rows

Growers sampling insectary habitat

Beetle bank club members, establishing a bank on a neighbors farm

Biologically-based alternatives to pesticides in caneberies are being developed with support from commodity commissions, the USDA CAR program and Western Region IPM grants program. Project partners include Peerbolt Consulting, Charles Benbrook, WSU Vancouver and USDA ARS Yakima

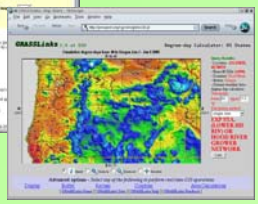
Phytodietus larva with leafroller host

The project follows up on a canberry PMSP. Its goals are to:
- Develop phenology models for key leafroller parasites
- Determine toxicity effects of insecticides on leafroller parasites
- Develop new IPM sampling and decision making methods for leafrollers
- Evaluate risks and economics of new IPM methods vs. conventional practices
- Find novel post harvest methods to remove leafroller contaminants from caneberries

2) Enhanced Diagnostic and Forecasting Tools

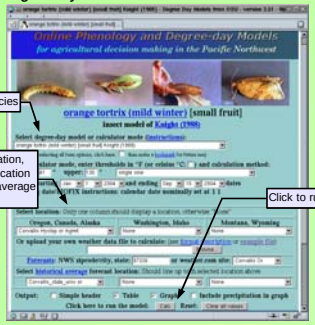
The Western Region IPM Center-sponsored Weather Workgroup is developing Internet-based weather forecasting and mapping tools, integrated with pest and disease phenology models and advanced weather data acquisition systems to deliver state-of-the-art decision support to growers in the Western USA and nationally. Project partners, NPDN, USDA ARS, WSU, UC IPM, Fox Weather, Spatial Climate Analysis Center. Support from USDA NRI, NPDN and Western IPM Center

GIS interface: zoom, pan, query, modeling forms



User selected modeling and mapping options

Degree-day models: standardized user interface



See current IPPC weather and phenology modeling tools at

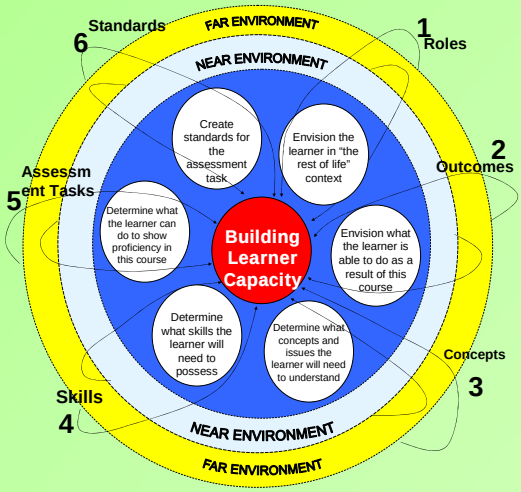
pnwpest.org/wea

Including details of how to access these in throughout the continental USA

3) Pesticide Management, Rational Use & Risk Mitigation

iSNAP Integrated Soil Nutrient and Pest Water Quality Education

The **iSNAP Water Quality Education Project** is a cooperative effort of Oregon State University (OSU), Washington State University (WSU), University of Idaho (UI), US EPA and Natural Resources Conservation Service (NRCS). The primary objective of the project is to provide educational programming and supporting resources to agricultural professionals and growers on innovative nutrient and pest management practices that can protect water quality, improve farm profitability and comply with environmental regulations. The iSNAP Project has two technical teams and a regional NRCS advisory group. Sponsorship is from the USDA CSREES National Water Quality Program and the Western Region IPM Center. Project partners, U. Idaho, Washington State University, NRCS and USEPA.



ISNAP uses a learning-centered outcomes-based development process (fig and process development by Mary Staben, IPPC)

4) Information Delivery, Decision Support and Outreach

The Pacific Northwest Pest Management Handbooks provide printed and on-line access to pest management information for pests, diseases and weeds. IPPC delivers on-line versions of these Handbooks which are written and developed by a large network of research and extension faculty at OSU, U. Idaho, and Washington State University.

On-line access provides connections to photographs of different pest life stages and damage and to phenology models that support IPM decision making

Contact Details

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