ODA PESTICIDE QUARTERLY

Issue Five Summer 1999 Oregon Department of Agriculture Pesticides Division

News In Brief

FQPA Hits Home in Oregon

The Food Quality Protection Act (FQPA) was implemented by the U.S. Environmental Protection Agency (EPA) in 1996 to protect the public from the potential risks posed by pesticide residues in food. Under FQPA, the Environmental Protection Agency (EPA) is required to reassess allowable residues on food for nearly 10,000 pesticide uses.

EPA's reassessment of pesticide products is seriously impacting Oregon growers, and also non-agriculture related interests, who rely on having pesticide products available as a tool to address specific pest problems. Within the last few months there has been a flurry of activity as EPA attempts to meet reassessment deadlines set forth in FQPA. EPA has recently distributed numerous notices for tolerance cancellations, product use cancellations, mandatory label revisions and voluntarily cancellations of products by registrants. The purpose for this "house cleaning" by EPA has been in attempts to meet the challenges faced with the revised definition of risk which now includes assessments of ecological effects, drinking water, occupational risk , residential exposure, and dietary risk. This new way of assessing risk may be necessary to comply with the FQPA, but the fall-out is creating a scramble by registrants to prioritize products and uses which tends to favor major crop groups. Since Oregon is comprised primarily of over 200 crops which are considered "minor crops", growers are watching the variety of products available to address pest problems reduce significantly, and quickly. Special Local Need (24c) registrations and emergency exemptions (Section 18s) in Oregon have increased dramatically in attempts to address Oregon pest problems with legal uses. Oregon growers are adjusting to address immediate pest control decisions, but must also deal with the uncertainty in planning for future uses which may or may not be preserved.

Changes in product labeling and availability is creating more than serious headaches for growers, commercial applicators and others. The "old standby" products that have been available for years may not be available anymore or there are changes in product formulations, use sites, tolerances, label requirements or possibly the product is no longer available at all. Keeping up with the changes has been a huge challenge for everyone involved, especially those in agriculture. Growers will need to insure that the label of the product they are using, is the one that they follow to the letter. Dealers must take care in the distribution of products as some are changing from general use to restricted use which now require a licensed applicator to purchase and apply. Consultants, Extension agents, field reps, and others who make recommendations must not depend on memory for pest management decisions which were standard in days past. Time and research must now be invested to check and double check if there are tolerance revocations being proposed which may affect the crop at harvest, recent product use changes or new label restrictions. Old products need to be used as quickly as possible to minimize confusion. The questions to ask are numerous and the time to ask them is before recommendations or applications are made. Although it takes a profound effort, there are many resources to stay "in the loop." Suggestions include working closely with extension agents, OSU minor crop extension specialists, commodity commissions, industry associations, food processors and/or ODA.

Bottom line: READ THE LABEL AND FOLLOW IT VERY CAREFULLY.

EPA Assigns FQPA Specialist to Pacific Northwest

Conscious of the potential impacts of FQPA on growers of minor crops, EPA has created four positions designed to provide outreach and education on FQPA implementation. Sandra Halstead, EPA Food Quality Protection Act Specialist, has been selected to represent the states of Alaska, Idaho, Oregon and Washington (EPA Region 10) to focus attention on those situations with limited crop protection alternatives toward to goal of devising real and sensible solutions. Region 10 is using a community-based approach to encourage dialogue, identify needs, and promote integrated pest management strategies in Pacific Northwest crop production. Halstead's goals are to:

- ♦ serve as a technical specialist for FQPA and IPM projects;
- ♦ cooperate in research and field demonstration projects using IPM techniques;
- ♦ act as community liaison in communicating local needs, issues and solutions to EPA;
- ♦ work to increase awareness in agricultural communities of methods and production systems that provide better protection to human and environmental health; and
- ♦ coordinate programs across local, state, university and federal agencies, and commodities.

Halstead's office is located at Washington State University's Irrigated Agriculture Research and Extension Center in Prosser, Washington. Her background includes degrees in agricultural science and agronomy, as well as over 15 years of agricultural research experience.

This spring, EPA Region 10 FQPA grants are funding a wide array of education and on-farm research and demonstration projects across a range of fruit and vegetable crops in Washington. These projects were identified by commodity representatives, consultants, and researchers as "weak links" in current IPM programs or as having the potential to further the adoption of IPM strategies. Details of the individual project proposals and significant findings generated in the research are available on Halstead's web site at www.tricity.wsu.edu/html/iarec/Faculty/Halstead.html.

Aspire Gets Post-Harvest Uses Added

Ecogen/Aspire Biofungicide (EPA Reg #55638-29) recently received US EPA approval of a label amendment adding post harvest uses to stone fruits and small fruits and berries to control the decay-causing pathogens of Penicillium spp. and Botrytis spp. Uses on small fruit and berries include blueberries, currants, gooseberries, cranberries, blackberries, boysenberries, loganberries, raspberries and strawberries.

Azinphos-Methyl Labels Change

One of the most recent target for FQPA changes has involved labeling of Azinphos-Methyl. Commonly purchased under the brand names of Azinphos-Methyl (Micro-Flo), Azinphos-M (Gowan), Guthion (Bayer) and Sniper (Platte), significant label changes have caused confusion in label interpretation and enforcement issues. The most current action involves recalling all existing Micro-Flo Azinphos Methyl products in distribution channels to facilitate repackaging of the wettable powder into water-soluble bags and to update labels.

All Azinphos Methyl products now require labeling as a Restricted Use Pesticide limiting the sales and use of this product to licensed pesticide applicators. The new label requirements add additional personal protection measures and lengthen restricted entry intervals (REI) under the Worker Protection Standards. The REI has been lengthened to 14 days for specific REI allowed activities.

Understanding how to comply with Azinphos Methyl products is challenging since there are old products with outdated labels in the hands of users which are still legal to use. ODA's advice to growers is to use old product first and to comply fully with the label that is affixed the product being used. It will take a while for product labels to be consistent. If there are questions that your dealer is unable to answer, please feel free to contact the ODA Registration section for label interpretation assistance.

The EPA Revised Risk Assessments for Azinphos-Methyl are available for public participation and comments. Comments must be received by EPA on or before July 19, 1999 (Docket control number OPP-34131C). Contact Karen Angulo, EPA Special Review & Reregistration Division (703) 308-8004 or angulo.karen@epa.gov

Plastic Pesticide Container Collections

Plan now to recycle your plastic pesticide containers. To date, 40,000 pounds of plastic have been collected and ground for recycling. The plastic will be used for pallets and other approved uses. For more information, the number to call is: (503) 370-7024.

DATE	DEALERSHIP/LOCATION
September 7	Wilbur Ellis - Umatilla
September 14	Pacific Grain Harvest - Cornelius
September 21	Western Farm Service - Hopmere
September 28	Wilco Farmers - Mt. Angel
October 5	Western Farm Service - Jefferson
October 12	Eugene Farmers Coop - Harrisburg
October 19	Cenex Supply - Madras
October 26	Basin Fertilizer - Merrill

REMEMBER, IT IS ILLEGAL TO BURN PLASTIC PESTICIDE CONTAINERS

WARNING: Azoxystrobin Phytotoxic to Certain Varieties of Apples

The new potato early blight chemical, azoxystrobin, marketed by Zeneca as Abound, Heritage, and Quadris, is a new reduced risk early blight fungicide that was recently registered by EPA for use on potatoes, grapes, filberts, and other specified crops. Due to significant phytotoxicity observed on apple foliage and fruit at normal use rates, this crop was not selected as a use site. However, continued concerns of phytotoxicity observed on apples has been determined to be due to extremely low rates from either drift into the trees from an adjacent application site or from spray directly on the trees through carry-over contamination where azoxystrobin was used in a sprayer that was subsequently used to spray sensitive apples. In order to prevent a repeat of the problems observed, the following statements have been added to the azoxystrobin labels under the general use precaution section:

"Azoxystrobin has been shown to be extremely phytotoxic to certain apply varieties. Azoxystrobin should not be applied where there is the possibility of spray drift reaching apple trees. Sprayers used to apply azoxystrobin should not be used to spray apples."

Specific varieties of apples are known to be ultra sensitive to azoxystrobin, however all apple varieties have not been evaluated. Off target drift may be considered a state or federal violation. The best advice is not to allow drift to contact any off-target sites (especially apples) and to follow specific sprayer cleaning procedures recommended by Zeneca to minimize residues in sprayers. Contact your pesticide dealer or Zeneca representative for additional guidance.

Hazardous Waste & Pesticide Collection Days

The Department of Environmental Quality (DEQ), in cooperation with local governments and Philip Services Corporation, is sponsoring waste collection events at four Oregon locations this fall. These collection events are a convenient way to dispose of conditionally exempt hazardous waste and waste pesticides safely, legally and at a reasonable cost.

DATE	CITY
September 11	Veneta
September 17	Talent
September 18	Gold Beach
October 15	Salem

For more information and/or to pre register, contact Philip Services corporation at 1-800-547-2436.

Depending on participation dates of events may change slightly.

Two New Positions Open in Pesticides Division

ODA Pesticides Division budget includes two new Natural Resource Specialist 3 technical positions; one in pesticide enforcement and the other in pesticide licensing and certification. Both positions will be based in Salem. Position announcements open July 12, 1999 and will be open for four weeks. If interested, contact ODA Personnel Division at (503) 986-4585.

OSU Provides Sustainable Ag Info

The Integrated Plant Protection Center (IPPC) of OSU recently entered into an agreement with the University of California to participate in a program entitled "Broadening the Audience: Providing Sustainable Agriculture Education for Pest Control Advisors and Agricultural Consultants in California and Oregon Through Multiple Information Delivery Systems." There are more than 4000 licensed pest control advisors (PCAs) in California and 960 licensed pesticide consultants in Oregon. These professionals are responsible, along with the farmers and ranchers who employ their services, for making critical crop management decisions. They are also in a unique position for educating their clientele about efficient use of farm resources and enhancing natural biological cycles and controls. The overall goal of this project is to provide this key audience of PCAs, agricultural consultants and other agricultural professionals with current information on the practical application of sustainable agriculture.

Four information delivery systems will be used to reach this audience: 1) a FAX information service delivering current information on topics relating to sustainable agriculture to service subscribers, 2) an electronic mail LISTSERV to distribute information focused on agricultural sustainability and provide a forum for discussion, 3) several Internet-based courses under the general heading of Agroecosystem Management: IPM and Sustainable Agriculture, and 4) a series of audio tapes covering a range of topics including: biologically intensive IPM; soil health, quality and conservation; agroecosystem management and links between IPM and sustainable agriculture; relationship between plant health and pest problems; water and air quality; and issues of pesticide resistance.

Myron Shenk and Waheed Bajwa of IPPC, managers of the FAX information service and the LISTSERV for Oregon subscribers, will be contacting all licensed pesticide consultants and other agricultural professionals in early July to offer these services to all interested parties. Funding for the project is being provided through the United States Department of Agriculture's Sustainable Agricultural Research and Extension (SARE) program.

Section 18 Emergency Exemptions

As of 01 July 1999, the Oregon Department of Agriculture has received 44 emergency exemption (FIFRA Section 18) requests from the grower community for uses of pesticides to control emergency pest problems during the 1999 growing season. The following tables show the status of the Section 18 requests that are currently in effect and the requests for which we are still awaiting decisions by the U.S. EPA.

EXEMPTIONS CURRENTLY IN EFFECT

CROP	PEST	PESTICIDE	EPA REG. #	EFFECTIVE DATES
Apples	fire blight	Mycoshield	100-900	04/08/99 - 08/01/99
Barley	stripe rust	Folicur 3.6 F	3125-394	04/23/99 - 08/15/99
Blackberries & Raspberries	gray mold	Switch 62.5 WG	Not registered	04/29/99 - 09/10/99
Canola	aphids	Capture 2 EC	279-3069	04/16/99 - 08/15/99
Christmas trees(true fir)	root aphids	Aphistar 50 WSP	Not registered	05/27/99 - 10/31/99
Corn (Field)	volunteer potatoes	Starane EC	62719-286	02/26/99 - 08/01/99
Corn (Sweet)	volunteer potatoes	Starane EC	62719-286	02/26/99 - 08/01/99
Cranberries	lotus, clovers, purple aster	Stinger	62719-73	02/19/99 - 12/31/99
Honey bees	Varroa mites	Bayer Bee Strips	Not registered	02/03/99 - 02/01/00
Hops	powdery mildew	Flint 50 WG	Not registered	06/28/99 - 09/22/99
Hops	powdery mildew	Folicur 3.6 F	3125-394	03/26/99 - 09/22/99
Hops	powdery mildew	Rally 40 W	707-221	04/27/99 - 09/22/99
Hops	downy mildew	Curzate 60 DF	352-592	07/01/99 - 09/10/99
Mint	redroot pigweed, kochia	Prowl 3.3 EC	241-337	02/02/99 - 12/31/99
Mint	redroot pigweed, kochia	Tough 5 EC	100-880	05/24/99 - 12/31/99
Peas, dry	broadleaf weeds	Gramoxone Extra	10182-280	05/25/99 - 11/30/99
Peas, green (for seed)	broadleaf weeds	Gramoxone Extra	10182-280	05/25/99 - 11/30/99
Potatoes	late blight	Tattoo C	Not registered	05/25/99 - 10/31/99
Potatoes (in storage)	late blight	Purogene	9804-5	09/24/98 - 08/15/99
Raspberries	root weevils	Brigade WSB	279-3108	06/25/99 - 08/15/99
Raspberries	yellow rust	Orbit	100-702	05/19/99 - 11/01/99
Strawberries	broadleaf weeds	Goal 2XL	707-243	12/08/98 - 08/15/99
Wheat	stripe/leaf rust	Folicur 3.6 F	3125-394	06/04/99 - 07/15/99

EXEMPTIONS REQUESTED BUT STILL PENDING

CROP	PEST	PESTICIDE	EPA REG. #	EFFECTIVE DATES
Apples	fire blight	Apogee	Not registered	Pending
Blackberries & Raspberries	gray mold	Elevate 50 WDG	66330-35	Pending
Grass-seed	grassy weeds	Kerb 50-W	707-159	Pending
Hops	downy mildew	Folpan 50-W	66222-07	Pending
Mint - Willamette Vly, only	garden symphylans	Mocap EC	264-458	Pending
Peaches	storage rots	Scholar	Not registered	Pending
Pears	fire blight	Apogee	Not registered	Pending
Potatoes (in storage)	late blight	Anthium AGP	9150-2	Pending
Potatoes (storage)	late blight	Purogene	9804-5	Pending
Potatoes (storage)	late blight	ProOxine	9804-9	Pending

Special Registration Contacts
Section 18s - David Priebe - (503) 986-4656
SLNs - Rose Kachadoorian - (503) 986-4651
Other Registrations - Janet Fults (503) 986-4652

Oregon Department of Agriculture
Pesticides Division
635 Capitol Street NE Salem OR 97301-2532
PH: (503) 986-4635, FAX: (503) 986-4735

http://www.oda.state.or.us/pesticide/info.html

New Pesticide Certification Examination Locations

Effective July 1, 1999 pesticide-related certification examinations will be administered at three additional locations:

OREGON CITY
Clackamas Community College
19600 South Molalla Avenue
Modular 2 Building
Oregon City, Oregon 97045
(503) 657-6958

PORTLAND
Portland Community College
Rock Creek Campus (only)
17705 NW Springville Road
Portland, Oregon 97229
(503) 614-7289

COOS BAY
Southwestern Oregon Community College
1988 Newmark Avenue
Coos Bay, Oregon 97420
(541) 888-7405

ODA has 9 other pesticide examination locations at: Ashland, Bend, Eugene, Gresham, Klamath Falls, Ontario, Pendleton, Salem and The Dalles. Exploration for an additional pesticide examination location in Eastern Oregon is on going and a new site for this area will be in the next newsletter.

Appointment required at all locations! Bring photo ID and social security number to examination sessions.

Please contact the ODA Pesticides Division in Salem at (503) 986-4635 if you have questions about pesticide-related certification exams, licensing, or recertification.

Pesticide Applicator Survey Results

We had a wonderful response to our Pesticide Applicator Survey that was sent out earlier this year. Since over 3000 licensed applicators and consultants responded, it took a while to compile the results. Listed below are the top 3 responses to each question. Most of the questions have a response of more than 3000 since multiple answers were possible.

1. **Where did you obtain information needed to pass your pesticide applicator exam(s)?**
   2,226 = OR Pesticide Applicator Manual
   1,289 = Applicator exam preparation courses
   1,000 = Personal knowledge/experience
2. **Attending training before examinations:**
   2,193 = Should be available, but not required, for all categories of exams
   596 = Should be required prior to taking ANY pesticide applicator exam
   294 = Should be required for Laws & Safety
3. **The process of determining adequate pesticide knowledge could best be improved in Oregon by:**
   1,494 = Pre-license training
   673 = Requiring apprenticeships/or experience prerequisites
   627 = Increase number of categories offered to more specifically address specialty areas
4. **Within a 12-month period, how many times should a person be allowed to retake an exam?**
   1,262 = Three 638 = Five 436 = Two
5. **If a waiting period is required between examination retakes, the waiting period should be:**
   773 = 1 week 748 = 2 weeks 388 = 1 month
6. **This question is not included in these survey results.**
7. **How often should license holders be required to be reexamined?**
   1,564 = Only for initial licensing
   747 = Only after violations of ORS 634 are determined
   609 = Once every five years
8. **CORE training is currently required only of private applicators. Would there be more benefit from having a CORE requirement which:**
   778 = Is required for ALL pesticide applicators
   553 = Focuses exclusively on laws and regulatory updates
   525 = Is more defined as to content
9. **The method of learning most valuable to you is:**
   1,952 = Hands-on/field workshops
   1,647 = Meeting presentations
   1,305 = Classroom lecture
10. **Should Washington and Idaho applicators be tested on Oregon Laws & Safety prior to issuing a reciprocal license?**
    1,700 = Yes 874 = No 709 = Reciprocity should be eliminated all together

11a. **Public applicators should be required to record ALL pesticide applications.**
    2,151 = Yes 664 = No

11b. **Private applicators should be required to record ALL pesticide applications.**
    1,691 = Yes 1,106 = No

11c. **Weather (temp., wind speed & direction, etc.) should be a record keeping requirement?**
    1,590 = Yes 1,182 = No

12. **ODA should provide a record keeping form which is:**
    2,286 = Mandatory
    1,758 = Not mandatory, but available
    572 = ODA should not get involved
13. **How do you access ODA Pesticides Division for information or assistance?**
    #1 = Telephone call to Salem office
    #2 = Through OSU-Extension referral
    #3 = Personal contact with Pesticides Staff
14. **How can communication with ODA be improved?**
    #1 = Continue newsletter
    #2 = Provide toll free telephone number
    #3 = ODA do more training/presentations

Thank you all for your help. Without your input, we can't provide the services that best help you, our customers.

24 (c) or Special Local Need (SLN) Pesticide Registrations

SLNs Granted in 1999

Registrant/Product	Site	EPA Reg. No.	SLN No.
Novartis/Tough 5EC	Chickpeas	100-880	990028
Zeneca/Warrior T Insecticide	Hybrid Poplars/Pulp	10182-434	990029
Entek/Conicur Plant Gro. Reg.	Noble Fir	68891-3	990030
Entek/First Choice Conicur	Noble Fir	68891-3	990031
Uniroyal Chemical/Dimilin 2L	Rangeland/Non-Crop	400-461	990033
ZP Rodent Bait AG	Grass grown for seed	12455-17	990034
Novartis/Dual Magnum	Alfalfa	100-816	990035
Zeneca/Bravo Ultrex	Mint	50534-201-10182	990037
Zeneca/Bravo Weather Stik	Mint	50534-188-10182	990038
Zeneca/Bravo Ultrex	Sugar beet grown for seed	50534-201-10182	990039
Zeneca/Bravo Weather Stik	Sugar beet grown for seed	50534-188-10182	990040
Novartis/Ridomil Gold EC	Potato	100-801	990041
Novartis/Dual Magnum	Meadowfoam	100-816	990042
Dow AgroSciences/Starane	Grass grown for seed	62719-286	990043
DuPont/Oust	Non Cropland	352-401	990044
AMVAC/Dibrom 8 Emulsive	Alfalfa grown for seed	5481-479	990032
Valent/Select 2 EC	Clover grown for seed,	59639-3	990045
Central OR Seed*/Mavrik Aquaflow	Carrot grown for seed,	2724-478	990046

* Wellmark International is the Section 3 Registrant

In a letter to the U.S. EPA, ODA has withdrawn its cancellation request of Valent./Dibrom 8 Emulsive, EPA Reg #59639-15, SLN #OR-900020, to allow the material to "clear the channels of trade."

Pending SLNs

Registrant/Product	Site	EPA Reg. No.
Gowan/Endosulfan	Hybrid Poplars/Pulp	10163-110
Rohm and Haas/Goal 2XL	New seeded grass grown for seed	707-243
Elf Atochem/Topsin M WSB	Potato	4581-377
LiphaTech/Rozol Pellets	Grass grown for seed	7173-151
Rohm & Haas/Laredo 2EC Fung.	Grass grown for seed	707-222
Monsanto/Roundup Ultra RT	Peas, lentils, chickpeas	524-475
Mesurol 2% Bait	Grass grown for seed	10163-228

EPA Solicits Comments on Chlorothalonil RED

In the June 3 Federal Register, EPA announced that the Agency is soliciting comments on the Reregistration Eligibility Decision (RED) for chlorothalonil. Chlorothalonil acts primarily as a fungicide and mildewicide, but also as other pesticidal activities. Chlorothalonil is registered on a wide variety of sites including field, vegetable, and orchard crops; turf; and as a mildewicide to be added to paint and other surface treatments. There are currently 39 tolerances for chlorothalonil.

Some of the major provisions contained in the RED include:

- Chlorothalonil products are prohibited for use on home lawns
- Prohibit sale of over-the counter chlorothalonil mildewicidal additives
- Untreated buffers required between estuarine/marine water bodies and ag crops treated with chlorothalonil: 150 feet for aerial and air-blast applications and 25 feet for ground applications.
- Individual and seasonal maximum application rates for many use sites reduced
- Wettable powder formulations must be packaged in water soluble bags

Comments will be accepted until August 2, 1999. Both the complete RED and the Fact Sheet are available on EPA's web site at the following URL: http://www.epa.gov/oppsrrd1/REDs/ or call (703) 305-5805.

Recent ODA Enforcement Actions

Party Cited: **Oregon Exterminating, Inc.**
Violation: a. ORS 634.372(5) Refuse to prepare and maintain records. Failure to allow department to inspect records.
b. ORS 634.372(9) Employ unlicensed applicators. 2 counts.
Fine / Action: Pesticide operator license suspension, 180 days.
Disposition: Final order issued. License suspension effective May 1, 1999 through October 27, 1999.

Party Cited: **Greenbriar Ag Management, Inc.**
Violation: a. ORS 634.372(9), no pesticide operator license.
b. ORS 634.372(9), employ unlicensed pesticide applicators, 8 individuals.
Fine: $2,700.00 ($300 X 9 counts)
Disposition: Issued, hearing requested.

Party Cited: **William C. Brawley.**
Violation: ORS 634.372(8), no pesticide applicator license.
Fine: $300.00
Disposition: Issued, hearing requested.

Party Cited: **Complete Pest Extermination Service**
Violation: a. ORS 634.372(9) no pesticide operator license.
b. ORS 634.372(9) employ an unlicensed applicator.
Fine: $600.00 ($300 x 2)
Disposition: Issued.

When Are You Licensed?

There was a time when a person would have been considered licensed if an application and monies had been received by ODA. No more. Due to abuse of this policy with checks written on insufficient funds, reciprocal license information which is never provided, inaccurate insurance information and other situations which invalidate processing of a license, **pesticide licenses will not be considered valid until it has actually been issued from this Department.** This may take up to two weeks for some license types, so it will be necessary to allow extra processing time in your schedule. Do not expect to pay for a license in the morning and work in the afternoon. ODA will be doing everything possible to minimize the processing time and regrets having to take this firm stand on something which was working for most, but ended up broken by a few.

Possible New Biopesticide from Oregon?

Meadowfoam, Limnanthes alba, is an herbaceous winter-spring annual, grown as a commercial oilseed crop in the Willamette Valley of Oregon and New Zealand. It has a unique oil consisting almost entirely of long-chain fatty acids which are used in the manufacture of lubricants, plastics and cosmetics. Meadowfoam has also become a valuable rotation crop for grass seed growers. Meadowfoam as a rotational crop allows for a "resting period" on heavily cropped soils, is an alternative to field burning, and has become an important tool in seed certification programs. The seedmeal remaining after oil extraction is typically discarded.

Limnanthes species produce large amounts of secondary metabolites like glucosinolates and phytoecdysteroids, which have allelochemical activity. Glucosinolates are converted to a variety of allelochemic compounds including isothiocyanates (ITCs), thiocyanates (TCs), nitriles, and ionic thiocyanate when hydrated. Glucosinolate degradation products have been shown to suppress weeds, fungal and bacterial pathogens, nematodes, and some insects. Various ecdysteroids have been identified in meadowfoam including 20-hydroxyecdysterone, ecdysterone and ponasterone A.

These compounds have potential biorational control use in horticultural and agricultural cropping systems and may possibly become an effective replacement for methyl bromide and other chemicals currently being phased out. Furthermore, the use of meadowfoam as a biocide could minimize synthetic pesticide use, reduce the associated potential for environmental contamination, and contribute to sustainable agricultural production systems.

As an ongoing project examining alternative pest control methods, Wes Deuel & Sven Svenson of OSU are conducting research on the use of meadowfoam (Limnanthes spp.) plant materials as a soil amendment to control weeds and soil borne organisms. The researchers are also examining the use of meadowfoam to regulate or "enhance" growth of horticultural and agricultural crops. Meadowfoam plant materials (MPM) can include defatted seedmeal or screenings used as a mulch/top-dressing or incorporated. Multiple experiments conducted at the N. Willamette Research & Extension Center (NWREC) in Aurora, OR, at Oregon State University in Corvallis, OR, and at various on-site locations (commercial nurseries) show that MPM controls some soil borne pests, inhibit weeds, and when applied at lower rates (<5% by vol.) enhance plant growth. Active compounds most likely responsible for controlling some weeds and soil borne pests are glucosinolate degradation products and phytoecdysteroids.

Prior to the use of these compounds or the seedmeal being used as a pesticide, U.S. EPA and ODA registration may be necessary. EPA may consider the seedmeal to be exempt from regulation under FIFRA (25 (b) rule), or they may place the review of the Glucosinolate compounds/seedmeal into a "fast track" program often used for biorational pesticides.

For more information, contact OSU researchers, Wes Deuel & Sven Svenson, (503) 678-1264. Wes.Deuel@orst.edu

ODA PESTICIDE QUARTERLY

Pesticides Division

Oregon Department of Agriculture

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Salem OR 97301-2532

Upcoming Pesticide Recertification Courses Available Through November 1999

Date	Location	Course Title	Credits	Contact	Phone
07/19/99	Hermiston,OR	ES Crop & Medical Insects	15	Lynn Royce	541 737 5520
07/19/99	Wenatchee,WA	WSHA IPM OF Pears Smnr-AM	3	Susan Mackey	509 665 9641
07/19/99	Wenatchee,WA,	WSHA IPM OF Pears Smnr-PM	3	Susan Mackey	509 665 9641
07/20/99	Wenatchee,WA	WSHA IPM OF Pears Smnr-AM	2	Susan Mackey	509 665 9641
07/20/99	Wenatchee,WA	WSHA IPM OF Pears Smnr-PM	2	Susan Mackey	509 665 9641
07/20/99	Salem,OR	CCC Private Appl Trng	3	D Craig Anderson	503 399 5139
07/21/99	Wenatchee,WA	WSHA IPM OF Pears Smnr-AM	1	Susan Mackey	509 665 9641
07/21/99	Salem,OR	CCC Private Appl Trng	3	D Craig Anderson	503 399 5139
07/27/99	Bend,OR	OROSHA PPE Course #203	3	Tomas Schwabe	503 378 3272
07/28/99	Shed,OR	W-E Hazwoper Trng	15	Jerry Voss	509 547 5720
08/03/99	Salem,OR	OROSHA PPE Course #203	3	Tomas Schwabe	503 378 3272
08/04/99	Shed,OR	W-E Hazwoper Trng	15	Jerry Voss	509 547 5720
08/11/99	Salem,OR	OROSHA Wkr Prot.Std #401	2	Tomas Schwabe	503 378 3272
08/17/99	Beaverton,OR	OROSHA PPE Course #203	3	Tomas Schwabe	503 378 3272
08/26/99	Clackamas,OR	OROSHA PPE Course #203	3	Tomas Schwabe	503 378 3272
08/26/99	Portland,OR	ONW Smnrs-Abiotic Plant	2	Hannah Mathers	503 678 1264
08/26/99	Portland,OR	ONW Smnrs-Conifer Disorders	3	Hannah Mathers	503 678 1264
08/26/99	Portland,OR	ONW Smnrs-Insct/NSY IPM-Sp	3	Hannah Mathers	503 678 1264
08/27/99	Portland,OR	ONW Smnrs-NSY IPM	3	Hannah Mathers	503 678 1264
08/27/99	Portland,OR	ONW Smnrs-NSY IPM-Spanish	3	Hannah Mathers	503 678 1264
08/28/99	Portland,OR	ONW Smnrs-Lndscp/AQ Weed	3	Hannah Mathers	503 678 1264
08/28/99	Portland,OR	ONW Smnrs-Grnhs Problems	2	Hannah Mathers	503 678 1264
08/28/99	Portland,OR	ONW Smnrs-Esc of Wtr Grdn	1	Hannah Mathers	503 678 1264
09/21/99	Portland,OR	PCC Pesticide Class - AM	15	Jim Meyer	503 614 7203
09/23/99	Portland,OR	PCC Pesticide Class - PM	15	Jim Meyer	503 614 7203
10/06/99	Wilsonville,OR	ProGrass Trng-Dormant Sprays	1	Joseph Wade	503 256 5596
11/16/99	Portland,OR	PNW-IVMA Forest&ROW Conf	2	Carol Ramsay	509 335 9222
11/16/99	Portland,OR	PNW-IVMA Forest&ROW Conf	2	Carol Ramsay	509 335 9222
11/16/99	Portland,OR	PNW-IVMA Forest&ROW Conf	4	Carol Ramsay	509 335 9222
11/17/99	Portland,OR	PNW-IVMA Forest&ROW Conf	2	Carol Ramsay	509 335 9222
11/17/99	Portland,OR	PNW-IVMA Forest&ROW Conf	2	Carol Ramsay	509 335 9222
11/17/99	Portland,OR	PNW-IVMA Forest&ROW Conf	1	Carol Ramsay	509 335 9222

Check ODA Pesticides webpage for the most current listing of courses being offered.