ODA PESTICIDE QUARTERLY

Issue XXI Summer 2003 Oregon Department of Agriculture Pesticides Division

News In Brief

PROPOSED FEE INCREASES

The Oregon Department of Agriculture has been discussing the possibility of fee increases for several license types since 2001, but has been able to avoid them until now. The current fees, which have remained the same since 1982, are not sufficient to generate enough revenue to match 2003 base program costs. Thus, Pesticides Division is proposing to raise licensing fees for the first time in 22 years to the maximum allowed under state law.

Fees collected from license holders and pesticide product registrations allow the agency to administer the Oregon Pesticide Control Act. Among the Pesticides Division activities administered are (1) product registrations, including registrations for special local need and emergency pest situations, (2) applicator and consultant examination, certification, licensing and recertification, (3) dealer, operator and trainee licensing, and (4) investigations for compliance with the act. None of the fees collected from the applicator, operator, trainee, consultant or dealer licenses are used to support the Pesticide Use Reporting System (PURS) program. Instead, revenue for PURS is obtained from product registration fees and general fund dollars.

As proposed, license fees would be increased for the following 2004 licenses:

License Type	Current Fee	Maximum Fee
Commercial Pesticide Operator	$40	$90
Commercial Pesticide Applicator	$15	$50
Commercial Pesticide Trainee	$15	$50
Public Pesticide Applicator	$10	$50
Public Pesticide Trainee	$10	$50
Pesticide Dealer	$10	$75
Pesticide Consultant	$15	$40

Private applicator licenses would not be affected by the increase because the fee for this license is already set at the statutory maximum.

NEW AMERICORPS WPS TRAINERS

Americorps volunteers are providing opportunities for FREE WPS training for growers. Training can be provided in either English or Spanish. Call or email to schedule your training today!

Molly Runyon
AmeriCorps SAFE Member
OSU Extension Service, Lynn Cty
Albany, OR 97321
Tel. 541-967-3871 ext. 2837
Fax 541-967-9169
Email: molly.runyon@oregonstate.edu

Jenny M. Ahlers
AmeriCorps SAFE Member
OSU Extension Svc, Washington Cty
Beaverton, OR 97006-8927
Te. 503-539-4523
Fax: 503-725-2100
email: Jenny.Ahlers@oregonstate.edu

BOOM SPRAYER CALIBRATION

Calibration of spray equipment is an important task for pesticide applicators. Although many ways exist to properly calibrate spray equipment, Dr. H. Erdal Ozkan of Ohio State University suggests calibrating boom sprayers using his table, which is based on 1/128th acre. Using his method, you can directly convert the number of fluid ounces collected to gallons per acre (GPA).

- First, determine the nozzle spacing on your spray equipment and reference the table below to determine the number of feet for the test course.

Test course distance	
Nozzle spacing (in.)	Travel distance (ft.)
18	227
20	204
22	185
24	170
26	157
28	146
30	136
32	127
34	120
36	113
38	107
40	102

- Determine the best speed you will use for the treatment area. Use the same speed in the test course as you will be using to make the application.
- Measure the time it takes to drive your spray equipment the distance of the test course.
- For the same duration of time as it took to drive the distance of the test course, collect and measure the amount of spray dispensed per nozzle, then average the output.
- Now getting sprayer output is easy! The number of ounces per nozzle is the same as the number as the number of GPA. For example collecting 15 ounces per nozzle means your sprayer will release 15 GPA of spray solution.
- If needed, you can adjust your sprayer output by altering driving speed, nozzle configuration, or sprayer pressure.

In addition to calibrating the equipment, you must determine the correct amount of pesticide to add to the tank. Unfortunately, a recent University of Nebraska Survey indicated that 38 percent of applicators failed to add the correct amount of chemical to the tank. Needless to say, adding an incorrect amount of chemical will potentially result in poor pest control, wasted money, damage to crops, or danger to humans and the environment. Dr. Ozkan recommends the following method for determining the correct amount of pesticide to be added to the tank.

- Take your total tank volume and divide that by the GPA determined during equipment calibration. This gives you the number of acres that are treated by one full tank. For example a 300 gallon tank divided by 15 gallons per acre would treat 20 acres.
- Next, consult the label to determine the amount of product per acre. Lets say that our example label recommends 0.5 gallon product per acre.
- Multiply the amount of product per acre by the number of acres treated by one full tank. This is the amount you should add to the tank. Make sure to compensate if you are refilling a tank that is not completely empty by multiplying the total amount of product by the percent of the tank that is being refilled. In our example we would multiply 20 acres times 0.5 gallons per acre to get 10 gallons. This is the amount of product that should be added to the tank.

Note: Most product labels show amount of product per acre, but some labels provide a rate recommendation as amount of active ingredient per acre. In these cases, consult your county cooperative extension agent or product sales rep for instructions on converting to the amount of product per acre.

With your calculations that you have just performed, you can obtain the ideal rate of product to your target site. For more examples of calculations, including banding applications, consult Dr. Ozkan's publication on the web: http://ohioline.osu.edu/aex-fact/0520.html

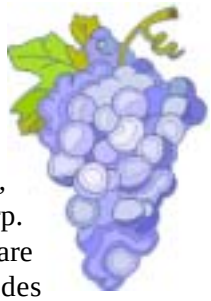
RECENT CIVIL PENALTIES ISSUED

Party Cited	Violation	Fine	Disposition
Western Farm Service, La Grande	634.372(2), distribute and use a pesticide inconsistent with its labeling	$680	Not contested. Paid. Final order issued.
Roger L. Mason	634.372(9), faulty, careless or negligent pesticide application.	$440	Issued.

The Arboreal Avenger says "Before using pesticides in the forest, make sure to comply with the Oregon Forest Practices Act"

DRIFT REMINDER

Summer is a time to be aware of the potential for herbicides to drift. Crops that are particularly sensitive are rapidly growing as summer sunshine drives up soil temperatures. Safe and careful applications of herbicides are needed to offer the best control of weeds, and save time and money while protecting sensitive crops according to Mary Corp, OSU Extension Agent - Umatilla County.



Corp, a recognized pesticide educator, strongly recommends care be taken in using all pesticide products.

"There are numerous sensitive crops spread across the state including peas, onions, potatoes, and canola," said Corp. "Grapes and home gardens in particular are also sensitive to phenoxy-type herbicides throughout their growing season.

Phenoxy damage often occurs when weather conditions are not ideal for spraying. Hot conditions increase potential for vapor drift, while dry windy conditions can lead to particle drift. Drift of either type onto sensitive plants could spell disaster. Check the label for special precautions

"Be proactive," advises Corp, " Get to know your neighbors and their crop plans before there is a problem." Corp also recommends these ways to avoid herbicide drift:

- Apply the coarsest droplets that provide sufficient coverage for pest control. Set nozzles closer to the target.
- Apply herbicides at low wind speeds (3 to 10 mph) and when consistently moving away from sensitive vegetation.
- Avoid early morning applications…wait for air temperatures to rise and air mixing to begin.
- Avoid application in late evening or after sunset when temperature inversions are forming

GROWER FACES WPS FINES

A Colorado vegetable grower - cited for 229 alleged violations of EPA's Worker Protection Standard (WPS) - is facing $231,990 in proposed fines, the largest proposed WPS penalty in U.S. Environmental Protection Agency history. David Petrocco Farms, Inc. of Brighton, Colorado was cited by EPA for failing to post required emergency, pesticide safety, and pesticide application information at a central location as required by the WPS. According to EPA, the farm, which was initially warned by federal investigators two years ago, nonetheless continued to keep the required information in a notebook inside the office, rather than in a central location accessible to workers in the field. The farm's co-owner, who is appealing the citations, called it "simply a misunderstanding of posting pesticide information." But EPA officials said that the federal government "will not tolerate growers who place their workers in harm's way because they fail to comply with the law."

This item was reprinted with permission from Gempler's ALERT, the newsletter of Ag/Hort safety and employment law compliance, www.gemplersalert.com

Please note that OR-OSHA is the lead agency in Oregon for WPS. For questions or consultations call 503-373-7819 or visit http://www.cbs.state.or.us/external/osha/forms/consufrm.htm

CCA CANCELLATION IN EFFECT

On March 17, EPA granted the voluntary cancellation and use termination requests affecting virtually all residential uses of chromated copper arsenate (CCA) treated wood. Under this action, affected CCA products cannot be used after Dec. 30, 2003 to treat lumber intended for use in most residential settings. This transition affects virtually all residential uses of wood treated with CCA, including play structures, decks, picnic tables, landscaping timbers, residential fencing, patios and walkways/boardwalks.

The action was proposed in February 2002 by the registrants of CCA-pesticide products used to treat wood. Phase-out of the residential uses will reduce the potential exposure risks to arsenic, a known human carcinogen, thereby protecting human health, especially children's health and the environment. The Agency is deferring any action on two uses involved in the termination requests, therefore wood used in permanent wood foundations and fence posts for agricultural uses may continue to be treated with CCA at this time. Consumers may continue to buy and use the treated CCA wood for as long as it is available. For more information, visit http://www.epa.gov/pesticides/

RECENT FERTILIZER VIOLATIONS

The following products were found to contain at least one guaranteed ingredient outside allowed levels. Products may contain the advertised amounts of other ingredients not listed below.

Registrant	Product Name	Element	Label Guarantee	Lab Analysis
The Andersons	25-5-15 Fertilizer with Nutralene	Copper (Cu)	0.10%	0.079%
Ag West Supply - Rickreall	20-4-8 Turf Blend	Total Nitrogen (N)	20%	17.4%
Western Farm Service - Rickreall	First Choice 28-5-7-10(S)-3(Fe)	Total Nitrogen (N)	28%	26.5%
		Sulfur (S)	10%	6.3%

24(C) OR SPECIAL LOCAL NEED (SLN) PESTICIDE REGISTRATIONS

Activities from April 2003 - July 2003

Granted

Registrant/Product	Crop	Pest	EPA Reg #	OR SLN #
BASF, Cabrio EG Fungicide	brassica crops grown for seed	alternaria leaf and pod spot, ringspot	7969-187	OR-030011
FarmSaver.com, Equus DF Chlorothalonil Fungicide	garbanzo beans	ascochyta blight	72167-25-73220	OR-030008
Crompton Manufacturing, Comite	sugarbeets grown for seed	two spotted spider mites	400-104	OR-030006
Dow AgroSciences, Stinger	cranberry	weeds	62719-73	OR-030009
Makhteshim-Agan, Thionex 3EC	seed crops (brassica / crucifer)	seedpod weevil	66222-63	OR-030010
Makhteshim-Agan, Thionex 3EC	alfalfa grown for seed	Spotted aphids & lygus bugs	66222-63	OR-030007
Crompton Manufacturing, comite	potatoes	two spotted spider mites	400-104	OR-030025
Makhteshim-Agan, Thionex 50W	Christmas trees	adelgid and midge	66222-62	OR-030012
Makhteshim-Agan, Thionex 3EC	Christmas trees	adelgid and midge	66222-63	OR-030013
Bayer CropScience, Admire 2F	hybrid poplars	cottonwood leaf beetles and *Phylloxerena popularia*	264-758	OR-030014
AMVAC, Blocker 4F Fungicide	potato	white mold	5481-472	OR-030015
Snake River Sugar, Roundup Original	sugar beets	weeds	524-445	OR-030016
Makhteshim-Agan, Thionex 3EC	poplars	mites	66222-63	OR-030024

Canceled

Registrant/Product	Crop	EPA Reg #	OR SLN #	Reason
Zeneca, Quadris	triticale	10182-415	OR-020014	Use is on Syngenta Quadris label
AMVAC, Blocker 4F	potato - chemigation	5481-472	OR-000019	Use is on OR-030015
Drexel, Dimethoate 4EC	cottonwood trees	19713-231	OR-960024	Use is on Sec 3 label
DuPont, Sinbar	grass grown for seed	352-317	OR-800021	Use is on Sec 3 label

Denied

Registrant/Product	Crop	Pest	EPA Reg #	Reason
Syngenta, Quadris Flowable Fungicide	crimson clover grown for seed	*Sclerotinia trifoliorum*	100-1098	Insufficient data
Bayer CropScience LP, Flint Fungicide	crimson clover grown for seed	*Sclerotinia trifoliorum*	264-777	Insufficient data

Pending

Registrant/Product	Crop	Pest	EPA Reg #
Dow AgroSciences, Stinger	strawberry	weeds	62719-73
Aventis, Temik 15G Aldicarb Pesticide Lock 'n Load	dry beans	mites, Lygus bug	264-523
FMC, Furadan 4F Insecticide Nematicide	onions grown for seed	onion thrip	279-2876
Aventis, Temik Brand 15G Aldicarb Pesticide	dry beans	mites, Lygus bug	264-330
Gowan, Imidan 70-W	increased rate on potato	Colorado Potato Beetle	10163-169
Crompton Manufacturing, Comite	corn - sweet (Fresh and Processing)	mites	400-104
Crompton Manufacturing, Dimilin 2L	poplar/cottonwood plantations	grasshoppers	400-461
Crompton Manufacturing, Omite	hops	two spotted spider mite	400-426
Crompton Manufacturing, Omite 6E	conifers - Christmas trees, ornamentals, nurseries	spider mites	400-89
Crompton Manufacturing, Dimilin 2L	alfalfa grown for seed	grasshoppers	400-461
Crompton Manufacturing, Comite	alfalfa grown for seed	two spotted spider mites	400-104
Platte, Clean Crop Sprout Nip EC	Easter lilies	chemical removal of flower buds	34704-613
Syngenta, Quadris Flowable Fungicide	dry and succulent peas, and cowpeas	powdery mildew and ascochyta blight	100-1098

Withdrawn

Registrant/Product	Crop	Pest	EPA Reg #	Reason
Phero Tech, Verbenone Pouch	lodgepole and ponderosa pine	mountain pine beetle	56261-3	Use is on Sec 3 label

RECENT FERTILIZER VIOLATIONS

The following stop sale, use, or removal orders were issued. U=Unregistered P=Product unregisterable L=Improperly labeled

Manufacturer, Product Name	Rsn	Date	Manufacturer, Product Name	Rsn	Date
Alaska Kelp Co., Garden G.R.O.G.	U	4/29/03	General Hydroponics, Floralicious Bloom	U	4/29/03
American Agritech, Power Clone Advanced Formula Rooting Gel	U	6/24/03	General Hydroponics, Floralicious Grow	U	4/29/03
American Agritech, Power Clone Concentrated Liquid Formula	U	6/24/03	General Hydroponics, PyroSol	U	4/29/03
ASG Consultants, Repellex 5-10-5 Bulb Saver	U	6/4/03	General Hydroponics, Rare Earth	U	4/29/03
ASG Consultants, Repellex 5-5-5 Root Saver	U	6/4/03	Grotek Manufacturing, Pure Fulvic Acid	P	1/15/03
Bio-Gro, Inc., Impulse PK 0-20-20	U	1/6/03	Grower's Choice Wholesale, NutriLife Bio-Cat	U	6/24/03
Bradfield Industries, Corn Gluten Natural Fertilizer	U	6/4/03	Grower's Choice Wholesale, NutriLife SM-90	U	6/24/03
EcoEnterprises, EcoBloom "L" 1-8-5	U	6/24/03	Grupo Bioquimico Mexicano, K-Tionic Nutrient Uptake Promoter	P	1/6/03
EcoEnterprises, EcoBloom "L" 3-0-0	U	6/24/03	Hydrodynamics International, Nitrozime w/ 400 ppm cytokinen	L	1/15/03
EcoEnterprises, EcoBloom "R" 6-25-17	U	6/24/03	JRV, LLC, E-Z- Cal 8-0-0 10% Calcium	U	1/28/03
EcoEnterprises, EcoBloom 3-35-10	U	4/29/03	Rambridge Wholesale Supply, Liquid Gold Fulvic	U	4/29/03
EcoEnterprises, EcoGrow "L" 3-4-5	U	6/24/03	Red Rock, Crop Thruster	U	1/28/03
EcoEnterprises, EcoGrow "L" 5-0-3	U	6/24/03	Red Rock, LM-32 Colloidal Minerals	U	1/28/03
EcoEnterprises, EcoGrow "M" 20-6-12	U	4/29/03	Voluntary Purchasing Groups, Compost Maker	U	1/15/03
EcoEnterprises, EcoGrow "R" 14-6-17	U	6/24/03	Voluntary Purchasing Groups, Soil Activator	U	1/15/03
EcoEnterprises, EcoGrow "S" 15-7-12	U	6/24/03	Welcome Harvest Farm, Welcome Harvest Farm Bat Guano	U	6/24/03
General Hydroponics, 0.2-0-0.2 Chi	U	4/29/03	Welcome Harvest Farm, Welcome Harvest Farm Fish & Crab Meal	U	6/24/03
General Hydroponics, Diamond Black	U	4/29/03	Welcome Harvest Farm, Welcome Harvest Farm Flower Power 4-10-4	U	6/24/03
General Hydroponics, Diamond Nectar	U	4/29/03	Welcome Harvest Farm, Welcome Harvest Farm Langbenite	U	6/24/03

ACTIVE AND PENDING SECTION 18 EXEMPTIONS

Crop	Pest	Trade Name	EPA Reg. #	Dates
Apples	fire blight	Mycoshield	100-900	04/03/03 – 08/01/03
Barley (in storage)	Lesser grain borer	Storcide	Not registered	08/01/02 – 07/31/03
Christmas trees (true fir)	conifer root aphid	Aphistar 50 WSP	Not registered	04/15/03 – 10/31/03
Corn, field	volunteer potatoes	Starane	62719-286	04/15/03 - 08/01/03
Corn, sweet	volunteer potatoes	Starane	62719-286	04/15/03 - 08/01/03
Grasses for seed (perennial & annual ryegrass, tall & fine fescues)	grassy weeds	Puma 1 EC	264-666	PENDING for 2003
Honey bees	Varroa mite and small hive beetle	CheckMite+ Bee Hive Pest Strips	Not registered	02/01/03 - 02/01/04
Hops	downy mildew	Curzate 60 DF	352-592	05/05/03 – 09/15/03
Hops	sucker control (powdery mildew)	Aim Herbicide	279-3194	03/25/03 – 08/15/03
Hops	powdery mildew	Quintec	Not registered	06/20/03 – 09/15/03
Hops	powdery mildew	Rally 40 W	707-221 62719-411	05/01/03 – 09/01/03
Mint (east of Cascades only)	redroot pigweed, kochia	Prowl 3.3 EC	241-337	02/07/03 – 12/31/03
Mint (baby only)	garden symphylans	Mocap EC	264-458	PENDING for 2003
Orchardgrass for seed	western orchardgrass billbug	Capture 2EC	279-3069	04/04/03 – 11/15/03
Pears (in storage)	postharvest decay - blue & gray molds	Scholar	100-969	PENDING for 2003
Pears (in storage)	postharvest decay - blue & gray molds	Penbotec 400 SC	Not registered	PENDING for 2003
Poplar, hybrid	western poplar clearwing moth (WPCM)	WPCM sex pheromone (3 formulations)	Not registered	05/28/03 – 10/01/03
Potatoes (in storage)	late blight	Anthium 200	9150-3	09/01/02 - 08/31/03 (Pend. for 2003-04)
Potatoes (in storage)	late blight	Purogene	9804-5	09/01/02 - 08/31/03 (Pend. for 2003-04)
Strawberries	broadleaf weeds	Spartan 4F	279-3189	04/03/03 – 02/28/04
Sugar beets	weeds	Outlook Herbicide	7969-156	04/15/03 – 07/15/03
Sugar beets	powdery mildew	Laredo 2EC	707-222 62719-412	PENDING for 2003
Wheat (in storage)	Lesser grain borer	Storcide	Not registered	08/01/02 – 07/31/03

UPCOMING RECERTIFICATION CLASSES

Search our web site for the most up-to-date recertification class information- http://oda.state.or.us/pesticide

Location City, State	Class Title	Date	Credits	Sponsor	Telephone
Beaverton, OR	Core Pesticide Trng in Spanish	7/15/03	6	Myron Shenk	(541) 737-6274
White City, OR	RCC Orn & Turf Herbicide Trng	7/16/03	4	Jeanne Howell	(541) 245-7909
Coos Bay, OR	OROSHA Hazcom Trng 205	7/17/03	3	Reggie Robb	(503) 947-7443
Salem, OR	CCC Private Applic License Tng	7/17/03	6	D Craig Anderson	(503) 399-5139
Auburn, CA	CFPC/CFSC Forest Tour	7/23-7/24/03	7	William Morrison	(530) 272-2297
Hood River, OR	ES MCAREC Field Day	7/24/03	1	Steve Castagnoli	(541) 386-3343
Hood River, OR	ES Hood River Summer Hort Tour	7/24/03	1	Steve Castagnoli	(541) 386-3343
Salem, OR	CCC Core Pestic Trn In Spanish	7/26/03	6	D Craig Anderson	(503) 399-5139
Hood River, OR	ES Core Training Private Applicators	7/29/03	4	Steve Castagnoli	(541) 386-3343
Long Beach, WA	WSU Cranberry Field Day	7/31/03	3	Kim Patten	(360) 642-2031
Brooks/St Paul, OR	Nut Growers Society Summer Tour	8/6/03	1	Polly Owen	(503) 678-6823
Eugene, OR	OROSHA Hazcom Trng 205	8/13/03	3	Reggie Robb	(503) 947-7443
Salem, OR	OROSHA Hazcom Trng 205	8/13/03	3	Reggie Robb	(503) 947-7443
Petaluma, CA	PAPA Seminar	8/20/03	V	Charlotte Carson	(916) 395-7579
Portland, OR	ONW Seminars	8/21-8/23/03	V	Aimee Schendel	(503) 682-5089
Portland, OR	OROSHA Hazcom Trng 205	9/17/03	3	Reggie Robb	(503) 947-7443
Beaverton, OR	OROSHA Hazcom Trng 205	9/24/03	3	Reggie Robb	(503) 947-7443
Salem, OR	OROSHA WPS Training	9/25/03	4	Reggie Robb	(503) 947-7443
Kansas City, MO	IFC Pest Mgmt In The Food Ind	10/28/03	14	Paul Laughlin	(913) 782-7600
McMinnville, OR	ES Pesticide Trng On Computer	Call	2	Susan Aldrich-Markham	(503) 434-8917
Compact Disk	Compact Disk-Multiple programs		V	Richard S. Kaae	(909) 886-7445
Internet	Whitmire Online Trng- Multiple programs		V	Darla Becker	(800) 777-8570
Internet	OROSHA Online PPE Trng 203		3	Reggie Robb	(503) 947-7443
Internet	OROSHA Online Haz Com Trng 205		3	Reggie Robb	(503) 947-7443
Internet	Pestnetwork.com-Multiple programs 1 cr. each		1	Charles Cole	(512) 990-3216
Internet Corresp	Davey Line Clearance Ext Crse		15	Richard V. Jones	(330) 673-9515

Although we have done our best to ensure the accuracy of this list, please call the contact person to confirm dates and credits ahead of time. Credits listed reflect the maximum level based on full attendance. Programs with "V" have variable credits based on how many and which sessions are attended.

MANAGING HEAT STRESS WHEN USING PESTICIDES

What is Heat Stress?

Heat stress is an illness that occurs when the body builds up more heat than it can cope with. Heat stress is not caused by exposure to pesticides, but may affect pesticide handlers working in hot conditions. Wearing personal protective equipment (clothing and devices that protect the body from contact with pesticides) can increase the risk of heat stress by interfering with the body's natural ability to cool down.

High temperatures, high humidity, and sunlight increase the likelihood of heat stress. Air movement, from wind or from fans, may provide cooling. Because physical activity causes the body to produce heat, a person is more likely to develop heat stress when working on foot than when driving a vehicle or flying an aircraft. Lifting or carrying heavy containers or equipment also increases the likelihood of overheating.

Avoid Heat Stress

Several factors work together to cause heat stress. Before beginning a pesticide-handling task, think about whether any of these factors are likely to be a problem. Consider making adjustments in the task itself or in the workplace conditions.

Use fans, ventilation systems (indoors), and shade whenever possible. A work area or vehicle sometime can be shaded by a tarp or canopy or provided with fans, awnings or air conditioners. Consider wearing cooling vests-garments with ice or frozen-gel inserts that help keep the body cool.

When heat stress risk is high, schedule frequent breaks to allow the body to cool. Consider using a work/rest cycle guide to decide how long to work before taking a break. When using recommended work/rest cycles, continue to be alert for possible heat-stress problems. Anyone who gets dangerously hot should stop work immediately and cool down. If necessary, shorten the time between breaks.

People who have become used to working in the heat are less likely to be affected by heat stress. Gradually increase the work period and the workload over several days. An adjustment period of at least seven days is recommended.

Schedule tasks requiring the heaviest workload or the most PPE during the coolest part of the day.

Drinking Water Intake

Evaporation of sweat cools the body. Under the conditions that lead to heat stress, the body produces a large amount of sweat. Unless the water lost in sweat is replaced, body temperature will rise. Drink plenty of water before, during, and after work during heat stress conditions. Do not rely on thirst alone to guide you. A person can lose a dangerous amount of water before feeling thirsty, and the feeling of thirst may stop long before fluids are replaced. Drink enough water every day to maintain a constant body weight. All weight lost because of sweating should be regained every day.

Personal Protective Equipment (PPE)

Pesticide handling tasks often require the use of extra clothing layers and other PPE. These items keep pesticides from getting on the skin, but they also interfere with natural body cooling that happens when sweat evaporates. A person can get overheated quickly when wearing PPE.

Select a level of PPE appropriate for the pesticide being used by consulting the pesticide label. Use personal experience and PPE selection guides to help decide whether more protection is needed. Do not over-protect if heat stress is a concern, but always wear at least the minimum PPE required. In general, the more protective the PPE is, the more it adds to the heat load.

Choose PPE that is designed to be as cool as possible or that provides a cooling effect, such as a powered air-purifying respirator or, when appropriate, back-vented coveralls.

Whenever it is practical and allowed on the label, choose coveralls that allow air to pass through. Woven fabrics (cotton, or cotton-polyester blends) allow air to pass through fairly easily. Rubberized or plastic fabrics and fabrics coated with chemical-resistant barrier layers allow almost no air to pass through. Nonwoven polyolefin (Tyvek®) fabrics allow little air passage. Nonwoven polypropylene and polyester/wood pulp fabrics vary in their resistance to air flow, depending on how they are constructed.

Stop Work

The above steps will help prevent most heat stress problems. But under extremely hot conditions when cooling devices cannot be used, it may be necessary to stop work until conditions improve.

Diagnosing Heat Stress

Mild heat stress is identified by fatigue (exhaustion, muscle weakness), headache, nausea, and chills. Severe heat stress (heat stroke) is a serious illness. Unless victims are cooled quickly, they can die. Severe heat stress is fatal to more than 10 percent of its victims—even young, healthy adults. Victims may remain sensitive to heat for months and be unable to return to the same work. These individuals may exhibit dizziness and fainting, loss of coordination, severe thirst and dry mouth, altered behavior (confusion, slurred speech, quarrelsome or irrational attitude). Heat cramps can be painful. These are muscle spasms in the legs, arms, or stomach caused by loss of body salts through heavy sweating. To relieve cramps, drink cool water or "sports drinks." Stretching or kneading the muscles may temporarily relieve the cramps. If there is a chance that stomach cramps are being caused by pesticides or other reasons, get medical help right away.

First Aid for Heat Stress

It is not always easy to tell the difference between heat stress illness and pesticide poisoning. The signs and symptoms are similar. Don't waste time trying to decide what is causing the illness. Get medical help right away. Get the victim into a shaded or cool area. Cool victim as rapidly as possible by sponging or splashing skin, especially face, neck, hands, and forearms, with cool water or, when possible, immersing in cool water. Carefully remove all PPE and any other clothing that may be making the victim hot. Have the victim, if conscious, drink as much cool water as possible. Keep the victim quiet until help arrives. **Severe heat stress (heat stroke) is a medical emergency! Cool victim and get medical attention immediately. Brain damage and death may result if treatment is delayed.**

This article was adapted from "Managing Heat Stress when Mixing, Loading and Applying Pesticides" by O. Norman Nesheim, Univ. of Florida. Full article: http://edis.ifas.ufl.edu/BODY_PI009

CAUGHT IN A WEB OF TROUBLE

Advertising is an important part of a business, but without proper licensing, those advertisements could cost! The Oregon Department of Agriculture recently finalized an enforcement action against a business for promotion of pest control activities through internet advertising. The enforcement action resulted in a civil penalty of $200.00.

ORS 634.372(9) prohibits a pesticide operator from representing or advertising as being in the business of applying pesticides without first obtaining and maintaining a pesticide operator's license.

This case was unique in that it was the first time the Department considered business advertising on the internet.

In March of 2000, the business was advertising pesticide applications for weed and vegetation control on residential and urban properties. Department investigators found the advertisements in a telephone book yellow page and on an "internet web site". This business was not licensed and was directed to either become licensed or cease advertising as being in the pesticide application business.

No license was obtained.

In February 2002, following a complaint, the Department accessed the web site and found the same business continued to promote and advertise the service of applying pesticides. Still, the business was not licensed.

Enforcement action was initiated for violation of ORS 634.372(9) and a civil penalty was issued. The business requested a hearing.

Prior to the hearing, the business owner conceded that he was not licensed. He further acknowledged and agreed that the web site advertising was intended to promote pesticide application business. However, his explanation and excuse for the web site advertising was that he had informed the "web master" to remove various statements and promotions but his instructions were not followed.

The Department gave consideration to the explanation about the "web master", but concluded that regardless of excuses, the business was responsible for every thing that did, or did not happen, with his web site. Rather than go to a hearing, the business decided to settle the matter by paying a civil penalty.

The lesson to be learned from this incident is that a pesticide business owner is responsible for what advertising and promotion he or she does. Problems with the advertising media, be it telephone directory, broadcast, newspaper, internet web site or whatever, are the responsibility of the operator.

As of today, the business never has become licensed as a pesticide operator, but, has corrected the web site.

ODA PESTICIDE QUARTERLY
Pesticides Division
Oregon Department of Agriculture
635 Capitol Street N.E.
Salem, OR 97301-2532

Webpage: http://oda.state.or.us/pesticide
PH: (503) 986-4635
FAX: (503) 986-4735
TTY: (503) 986-4762

Q & A - JAPANESE KNOTWEED CONTROL

Question: I am interested in controlling Japanese Knotweed and was told I could inject glyphosate into the stems. Because I have heard various amounts recommended, it is unclear what is the maximum amount of glyphosate I can inject. What is the recommended rate?

Answer: It is important to carefully read the pesticide label of any product that you are interested in using. Avoid taking someone's word that the rate, site and/or application method appear on a label. In the NW, some erroneous information has been disseminated concerning the control of Japanese Knotweed.

With this in mind, several glyphosate labels with injection listed as an application method were reviewed. The ONLY injection rate allowable on these labels is the equivalent of 1 ml of glyphosate product per each 2 to 3 inches of trunk/stem diameter. Therefore, it would be legal to inject 1 ml into a Japanese knotweed stem with a diameter of 2 inches or greater. It would be inconsistent with label directions to use the 1 ml rate on a stem less than 2 inches in diameter. Using any product in a manner inconsistent with the label directions is a violation of state and federal law and could result in enforcement action.

It is anticipated that research conducted under an Experimental Use Permit will be conducted this year using various rates of glyphosate. This data could possibly be used to support a Special Local Need (SLN) pesticide registration. Without a SLN for this use, you may only use glyphosate products at rates specified on the label.