



University of Idaho Pest Management Center

Newsletter

Pest Management News

Newsletter and archives can be found at <http://www.ag.uidaho.edu/ipm/news.htm>

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Pest Alert

Sugarbeet Root Maggot

The early onset of warm, spring weather has added approximately 10 growing degree days (GDD) to the front side of our growing season. With warm weather comes the emergence of overwintering sugarbeet root maggots. According to the sugarbeet root maggot GDD model, developed by UI Entomologist Ed Bechinski, peak root maggot adult flight should be April 22, more than two weeks earlier than last year's peak flight (May 13). Therefore, we can expect to see maggots feeding by the end of April. Flies have already been found in Ontario, Oregon and in Wieser. Infestations will begin on the western end of the Treasure Valley and

move eastward. The Treasure Valley Pest Alert website has more detailed information about the infestation, including a description of the pest and damage, sampling thresholds, management options, and links to the "IPM Guide to Sugarbeet Root Maggot" (University of Idaho CIS 999). This information can be viewed at: <http://www.tvpestaalert.net/index.php3>

Pest Alert

Cutworms Found in Sugarbeets in the Treasure Valley

Cutworms have been found in sugarbeet fields around the Treasure Valley. Infestations are worse in fields that were previously planted to grain or corn. Application of mint sludge may

also increase infestation. There are no economic thresholds for this pest, so the decision to treat depends on the severity of the injury. The Treasure Valley Pest Alert website has links to the PNW Insect Management Handbook with management options. It also has links to the University of California's cutworm management information, which includes pest identification, pest damage and management options. For more details, check the website:

<http://www.tvpestalert.net/index.php3>.

Pest Alert

Haanchen Barley Mealybug Found in Eastern Idaho

Dr. Juan Alvarez, University of Idaho Entomologist, confirmed the presence of viable barley mealybug ovisacs and some live nymphs in barley stubble in Caribou and Fremont Counties. Both nymphs and adults can injure barley plants. Researchers predict that this year's infestation could be as damaging as it was last year. It is clear that barley is the preferred host for this pest, as no mealybugs have been found overwintering in winter wheat fields. Currently, the University of Idaho does not have any chemical recommendations. Juan Alvarez is working on field trials to test the efficacy of various management strategies, including seed treatments, foliar treatments and biological controls. It is important to scout for mealybugs as soon as plants emerge, especially in areas that were infested last year, field margins, and thin areas within the field. Detecting mealybug damage, whether direct or indirect, is straightforward. Cottony masses (ovisacs) collect at the base of plants. Feeding causes yellowing and browning of the plants – often confused with drought stress. Root systems of affected plants are poorly developed and the plants can be easily removed from the ground. Severe infestations in commercial fields eventually kill the plants. Feeding also causes honeydew deposits. The honeydew has the potential to reduce grain quality – black stems and grain heads can be observed in infested fields. Frequent inspections are advised because populations can increase very rapidly. If you have questions regarding the Haanchen Barley Mealybug, contact your local Extension Educator, or Dr. Juan Alvarez in Aberdeen.

Pest Alert

Grasshoppers and Mormon Crickets

Grasshopper and Mormon cricket infestations are three weeks earlier than usual this year. USDA APHIS will treat infestations on Federal land, and ISDA has installed programs to help growers and ranchers treat on private lands. Growers with private land abutting Federal lands can report infestations on Federal Lands, as well as fill out "no spray" request forms on the Idaho State Department of Agriculture website, <http://www.idahoag.us/plants/ghtoc.htm>. ISDA will distribute 5% carbaryl baits, in addition to offering a cost share program for the purchase of any other chemical registered for grasshopper and Mormon cricket control. Two-thirds of the cost of the chemical will be paid by ISDA. More detailed information on these programs is also available at the aforementioned website.

Pest Alert

Cereal Leaf Beetle Eggs and Adults Found in Southwestern Idaho

CLB adults, larvae and eggs have been found in the Treasure Valley, and CLB larvae are beginning to hatch in the Parma area. Small grains producers should scout for CLB eggs in their fields early to get an understanding of the damaging larval populations they can expect in the spring. The egg threshold is three per plant (including all tillers). Overwintering adults begin flying and mating when daytime temperatures reach 66° F. Eggs are laid on host plants within ten days of emergence. Spring seeded grains, especially oats and barley, are the preferred hosts for CLB. The Treasure Valley Pest Alert website has links to CLB images (eggs, adults and larvae) as well as links in IPM information. For more details, check the website at: <http://www.tvpestalert.net/index.php3>

Pest Alert

Codling Moth and Western Cherry Fruit Fly Threatens Treasure Valley Tree Fruit

According to Growing Degree Day models, western cherry fruit flies will accumulate to damaging levels in the Treasure Valley May 21 to 25. Additionally, the models predict codling moth larval emergence between May 12 and 14. Accumulation of degree days is accelerated this year by at least two weeks due to unseasonably high temperatures. For more information, check the Treasure Valley Pest Alert website, <http://www.tvpestalert.net/index.php3>

Pest Alert
Lygus Bug Scouting Necessary in Alfalfa Fields

According to the lygus bug degree day model (<http://ippc2.orst.edu/cgi-bin/ddmodel.pl?spp=lyg>) we should be seeing peak numbers of 1st and 2nd instar lygus nymphs from the 1st generation lygus hatch right now. This is about 2 weeks ahead of schedule due to the warm weather. It is important to scout fields now and to determine treatment needs. Fields should be checked at least once a week if possible, more if you are approaching the threshold of 4 lygus per sweep. Small instars are easier to control than large instars or adults. Set back operations should lower lygus bug populations somewhat, but scouting is still necessary. Beneficial insects, such as bigeyed bugs, damsel bugs and minute pirate bugs have been found. If the population of bigeyed bugs plus damsel bugs is twice the number of lygus bugs, and lygus numbers are not increasing, treatment may not be needed. The Treasure Valley Pest Alert website has links to management information alfalfa insect pests. For more details, check the website at: <http://www.tvpestalet.net/index.php3>.

Pest Alert
Onion Bulb Mites Found in Southwestern Idaho

Onion bulb mites have been found in onion seedlings in the Parma area. According to researchers, mite populations are severe enough to damage stands. Currently, there are no specific methods for monitoring populations and no treatment thresholds. Mite treatments are generally preventative. These pests are most damaging when plant growth has been slowed by cool, wet weather. The Treasure Valley Pest Alert website has links to the University of California's onion bulb mite management information, which includes pest identification, pest damage and management options. For more details, check the website: <http://www.tvpestalet.net/index.php3>

Pest Alert
Onion Maggots Found in Southeastern Oregon

Onion maggots have been found in onion seedlings in Vale, Oregon. Larvae of this pest attack germinating seedlings. Adult feeding is similar, but can also affect the onion bulb. There are no specific monitoring methods for this pest, although fly activity can be estimated by using

yellow sticky traps. Treatments for onion maggots are preventative. The Treasure Valley Pest Alert website has links to the University of California's onion maggot management information, which includes pest identification, pest damage and management options. For more details, check the website: <http://www.tvpestalet.net/index.php3>

Treasure Valley Pest Alert an Important IPM Tool

Treasure Valley Pest Alert, developed by faculty at the University of Idaho and Oregon State University, is designed to deliver timely crop pest information across the Treasure Valley. Pest information can be submitted by growers, field representatives, or any other *Pest Alert* subscriber. The information is subsequently verified by faculty and posted on the *Pest Alert* website. An email notice about the pest infestations is automatically sent to subscribers with links to research based pest identification, life cycle, IPM and control information. The purpose of these email notifications is to improve pest management decisions when outbreaks occur. To view pest alerts, to subscribe, or to find out more information about the *Treasure Valley Pest Alert*, visit the website, <http://www.tvpestalet.net/index.php3>.

Barley Mealybug Technical Committee

The Idaho Barley Commission has facilitated the formation of the barley mealybug technical committee. The goals of this committee are twofold: (1) to identify and disseminate accurate information to growers in several eastern Idaho counties who may face another year of mealybug infestation and (2) to provide input on and participate in a comprehensive research effort led by Dr. Alvarez, which will include pesticide field trials this summer. Dr. Alvarez received a grant from the IBC this year to conduct mealybug research and has been invited to submit a grant proposal to the USDA/CSREES Emerging and Critical Pest Program. The Barley Mealybug Technical Committee held a conference call on April 9 to discuss a broad range of issues and to develop a grower information strategy. Invited participants included: representatives from the Idaho Barley Commission, Research and Extension Faculty from the University of Idaho, Montana State University and Oregon State University, industry representatives, and chemical manufacturers and dealers.

Zinc Phosphide Registration Approved by EPA

Full registration of Zinc Phosphide has been completed on several Idaho crops, including barley, wheat, potatoes, sugar beets, alfalfa and dry beans. Unfortunately, the labels for the USDA APHIS poisoned wheat seed and Hacco pellets are still pending final approval at EPA. The Idaho State Department of Agriculture has proposed issuing a 24(c) label on the Hacco product so that the existing material can be used and that aerial applications will be allowed in Idaho. Both Idaho Barley Commission and ISDA will stay on top of EPA to get label approvals as soon as possible for both the APHIS treated wheat seed and Hacco pellets.

EPA Launches Buffer Zone Mapping Site

On April 28 EPA launched a new interactive mapping site intended to help pesticide users better understand the specific buffers and the waters to which they apply as ordered by the Jan. 22 ruling in the Washington Toxics Coalition case. The interactive maps can be accessed at <http://www.epa.gov/espp/wtc/maps.htm>.

Generally, the buffers established by the court are 20 yards for ground application and 100 yards for aerial application, adjacent to certain "salmon-supporting waters" in Washington, Oregon, and California. The variations and exceptions to this general buffer zone are also explained on EPA's website, and will be detailed further in the next issue of this newsletter. For a review of the case, see the following article.

Commonly Used Pesticides May Need to Adhere to Stricter Regulations

On July 3, 2003, a U.S. District Court in western Washington ruled that EPA violated its obligations under the Endangered Species Act (ESA), which requires EPA to determine whether or not a pesticide will jeopardize endangered or threatened species. By law, EPA must coordinate with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) before registering a pesticide to decide if a "no spray" buffer zone is required for using that pesticide near waterways. The waterways potentially affected by this ruling are the Columbia River and its tributaries – including the Snake River – or, basically, any west coast stream that is home to threatened or endangered salmon and steelhead species.

There are 54 commonly used pesticides in question. The judge ordered EPA and the plaintiffs to negotiate which of the 54 pesticides should require additional buffer zones, as well as negotiating the size and extent of these buffer zones. Furthermore, EPA has until December 31, 2004 to finish an extensive review of all 54 pesticides – including consultation with USFWS and NMFS – to determine which of them "may affect" the species in question.

Diazinon Phase-out Plan

As many are well aware, diazinon, a widely used insecticide, is being phased out. Below are the key points of the product stewardship program:

- Last day retailers can sell diazinon is December 31, 2004.
- Syngenta and Makhteshim will buy back all remaining inventory from retailers after December 31, 2004.
- Marketers have agreed to stop selling the product as soon as their packaging supplies are depleted.
- Manufacturers are recalling all obsolete formulator inventories effective March, 2004.
- Only 56% of retailers sold diazinon in 2003 compared to the year 2000.
- Very little inventory remains in the big retailers, such as Home Depot, Lowes, and Walmart.
- All remaining inventory not sold by retailers will be incinerated.
- End-use products in the hands of consumers do not have to be returned to the dealer/retailer. They can be used according to the label until they are gone.
- Questions can be directed to Syngenta at 1-800-334-9481.

Federal Register Notice

Dimethoate Products Cancelled on Grapes and Apples

Dimethoate products registered for grapes and apples have been cancelled effective January 28, 2004. Registrants are permitted to sell and distribute existing stocks until January 28, 2005. For more details, view the Federal Register Notice (FR Vol. 69, 1.28.04).

New Formulation of Bifenthrin Registered for Corn

Discipline 2EC, a bifenthrin product, has been registered for corn for control of cutworms, armyworms, and European corn borer.

Stored Grain Insecticide Cancelled

Reldan (chlorpyrifos-methyl), used to fumigate grain bins to protect against lesser grain borer, was officially cancelled on December 31, 2003. However, the phase-out plan for this insecticide has been extended until December 31, 2005, meaning that all existing stocks of Reldan can be used until that date.

Federal Register Notice

EPA Evaluates Re-registration of Diuron

Diuron/Karmex (diuron), a pre- and post-emergent herbicide used on various crops (apples, alfalfa, grapes, barley, wheat, small fruits, Kentucky bluegrass, peas, mint, peaches, tree nuts, pears, oats and field corn), as well as on non-crop areas, is being studied by EPA for its re-registration eligibility. EPA has determined that the registrants must make the following changes in order for diuron to be eligible for re-registration:

- Rate reductions and increased re-treatment intervals on apples, alfalfa, grapes, filberts, walnuts, peaches, grass seed crops and rights of way/non-crop areas.
- Aerial applications eliminated except for rights-of-way, alfalfa, winter barley, winter wheat, and grass seed crops.
- All wettable powder products to be canceled.
- Application by pump-feed backpack spreader and gravity-feed backpack spreader will be prohibited.
- Use on home lawns will be prohibited.

EPA is asking for public comments on its decision. Comments must be submitted by June 21, 2004. For more details, view the Federal Register notice, <http://www.epa.gov/fedreg/EPA-PEST/2004/April/Day-21/index.html>.

Spartan Registered on Potatoes

The soil applied herbicide Spartan (sulfentrazone) is now registered for control of broadleaved weeds in potatoes.

Starane Registered on Corn

The post-emergence herbicide Starane (fluroxypyr) is registered for use on both field corn and sweet corn.

New Post-Emergent Herbicide Available for Wheat

Osprey (mesosulfuron) is a new herbicide that is registered for wild oat and annual ryegrass control in wheat.

New Formulation of Pendimethalin Available

Prowl H2O is a new formulation of pendimethalin. Changes to the original formulation include a reduction in odor, staining and volatility. Prowl H2O does not require soil incorporation, due to its reduced volatility. It is registered on beans (dry, lima and snap), corn (field, sweet and pop), potatoes, peas (dry and green), chick peas, lentils and onions.

Quintec Now Registered on Grapes, Hops and Cherries

Quintec (quinoxifen), a protective fungicide currently used on cereals, has recently been registered for use on grapes, hops and cherries for control of powdery mildew.

New Fungicide Available for Potatoes

Previcur Flex (propamocarb hydrochloride) is registered for late blight and early blight control on potatoes, and on various vegetable crops.

Quilt Fungicide Registered for Foliar Application on Wheat

Quilt (azoxystrobin and propiconazole) is now registered for control of foliar diseases in wheat.

New Plant Growth Regulator for Use on Apples and Pears

ReTain (AVG) is a new plant growth regulator that is registered for apples and pears.

New Plant Growth Regulator for Use on Apples

MaxCel (6-benzyladenine) is a new plant growth regulator that is registered for apples.

U.S. Regulatory Agencies Publish a Unified Biotechnology Website

Four governmental agencies, USDA, USEPA, FDA, and USGS, have collaborated to provide the public with a source of information about the United States' oversight system for products of modern biotechnology. The website has a searchable database with information on all the genetically engineered crop plants that have completed the recommended or required reviews for food, feed, or planting use in the US (the crops are sugarbeets, canola, corn). There are also links to laws and regulations surrounding biotechnology products and government contacts. The website can be accessed at:

<http://usbiotechreg.nbio.gov/>

New Extension Publication on Herbicide Drift Management to Protect Grapes

Dan Ball, Robert Parker and Jed Colquhoun from Oregon State University, and Imed Dami from Ohio State University have released a publication entitled, "Preventing Herbicide Drift and Injury to Grapes". Included in the publication are a list of herbicides most potentially harmful to grapes, a list of the types of herbicides most harmful to grapes, photos of herbicide drift injury symptoms, a list of alternative herbicides, and specific strategies for protecting grapes from herbicide drift. To view or order the publication, go to the following website:

<http://eesc.oregonstate.edu/agcomwebfile/edmat/em8860.pdf>

High Plains IPM Guide Now on the Internet

The IPM programs at Colorado State University, Montana State University, the University of Nebraska and the University of Wyoming received support from USDA, Western Region IPM Center, and USEPA (Region 8) to update the High Plains IPM Guide from its previous binder format to an informative and interactive website. The website provides the reader with general information related to IPM, as well as with more specific information on insect, disease and weed pest management for the crops in the region. Information is available for the following crops: alfalfa, field corn, small grains, sunflower, dry beans, sorghum, canola, sugarbeets, potatoes, cole crops, eggplant, peppers, tomatoes, onions, sweet corn, lettuce, carrots, spinach, cucurbits, mint, peas, lentils and livestock. Also included is a section on cropland and rangeland grasshopper management.

Through the website, it is possible to make contact with the specialists who authored various sections through the website. Another feature accommodates those without access to computers; an extension agent with access can print and mail specific information to a client who does not have easy Internet access. The website can be found at:

<http://www.highplainsipm.org/>

New IPM Publication Geared For Kids

A new publication entitled, "Join our Pest Patrol: A Backyard Activity Book for Kids on Integrated Pest Management." is aimed at elementary school children in grades 3 - 5. It was originally developed by the Minnesota Department of Agriculture under an EPA grant, and was such a success with educators that it has now been adapted for nationwide use. The book contains 29 pages of activities that can easily be incorporated into reading, science, or even math and art classes. It provides kids - and teachers - with important information about pest identification and biology, and ecology. Even more important, it helps children understand the impact our personal choices - whether or not to use chemicals to control pests, for instance - can have on the environment. To order, call Kathy Seikel at 703-308-8272 or email seikel.kathy@epa.gov.

Crisis Exemption

Please Note: It is a violation of Federal Law to use these products in a manner inconsistent with the updated EPA stamped label. This label must be in possession of the user at the time of pesticide application.

Name	Crop	Pest	Notes
Dimilin 2L (diflubenzuron)	Alfalfa Hay	Grasshoppers (<i>Camnula Pellucida</i>) and Mormon Crickets (<i>Anabrus simplex</i>)	Valid until October 31, 2004. Can be applied in all counties in Idaho where grasshopper and Mormon cricket infestations occur. One application per cutting is allowed with a maximum of 2.0 fluid ounces of product applied per acre per season. Most effective on 2 nd to 3 rd instars, and not effective on adults. Re-entry interval for workers is 12 hours after application. Hay cannot be harvested the same day the application has been made. Do not plant food or feed crops in the same field within a month of application unless there is a Dimilin label for that crop. There are additional precautions associated with this product due to its toxicity to fish and aquatic organisms. These include: not applying the chemical directly to any body of water; leaving an untreated buffer strip of 25/150 (land application/aerial application) feet when spraying near fish bearing waters.

Recently Approved Section 24c and 18 Labels for Idaho

Section 24c

Please Note: It is a violation of Federal Law to use these products in a manner inconsistent with the updated EPA stamped label. This label must be in possession of the user at the time of pesticide application.

Name	Crop	Pest	Notes
Everest (flucarbazone)	Wheat	Wild Oats	Allows Everest applications to be made aerially. Currently, Everest is registered for ground application only.
Dividend Extreme (difenoconazole and metalaxyl)	Spring Barley Seed	Controls: Barley Stripe, General Seed Rots, Fusarium Seed Scab, Covered Smut and Pythium Damping Off. Partially Controls: Take all, Root Rots (<i>Fusarium</i> , <i>Rhizoctonia</i> and <i>Cochliobolus</i>), Fusarium Crown Rot	Dividend Extreme is intended to replace Dividend XL, which is being discontinued. The Dividend XL 24c label will remain active until the existing stocks have been depleted. Seed treated with Dividend Extreme cannot be used for food, feed or oil. Do not graze barley treated with Dividend Extreme, or utilize straw or seed screenings as animal feeds. It is necessary to wait 30 days before re-planting field to crops not on the Dividend Extreme label.
Ro-neet (cycloate)	Sugarbeets	Annual and Perennial Weeds (pre-emergence)	Must be used in post-emergent sugarbeets. Incorporate immediately after application. Not to be tank mixed with Betamix.
Mustang Max (zeta-cypermethrin)	Sugarbeets	At-planting: Wireworms and White Grubs (suppression only), and Cutworms. Foliar Treatment: Cutworms, Flea Beetles, Sugarbeet Root Maggot adults	Wait at least 50 days after application before harvesting.
Furadan 4F (carbofuran)	Sugarbeets	Sugarbeet Root Maggot	This is a revision of an existing 24c label. Applications should begin after adult fly emergence; no applications should be made at planting. Moisture is required after application for incorporation. A maximum of 2 quarts product can be applied per acre per season. Do not tank mix with humic acid.

Section 24c (continued)

Name	Crop	Pest	Notes
Moncut SC (flutolanil)	Potatoes	Black Scurf (<i>Rhizoctonia solani</i>)	This is an existing 24c label. No changes have been made, except to extend the expiration date to December 31, 2006.
Diazinon AG500 (diazinon)	Potatoes	Wireworms, Cutworms	Applications can be made pre-plant (incorporated) or at-planting. The federal Diazinon label contains specific directions on incorporation. No foliar applications are allowed. This chemical cannot be applied to potatoes that will be hand-harvested. Do not re-enter treated area less than 24 hours after application (REI is 24 hours). Potatoes cannot be harvested prior to 35 days after application.
Platinum Ridomil Gold (thiamethoxam and metalaxyl)	Potatoes	Colorado Potato Beetle, Aphids, Potato Leafhoppers, Potato Psyllids, Flea Beetles, Pink Rot (<i>Phytophthora erythroseptica</i>) and Pythium Leak (<i>Pythium</i> spp.)	Can be applied to the soil surface at hilling, a method not permitted by the Section 3 label. Must be incorporated immediately after application (by tillage or by irrigation). Only one soil application is allowed per season, and a maximum of 38 fluid ounces of product can be applied per acre per season.
Wakil XL (metalaxyl, cymoxanil, fludioxonil)	Peas grown for seed	Damping-off and Seed rots (<i>Pythium</i> spp.); Seedling Diseases (<i>Ascochyta</i> spp.) and Downy Mildew (<i>Peronospora viciae</i>)	Peas treated with Wakil are for export to New Zealand, France and the United Kingdom only. Not to be sold in the U.S.
Onager (hexythiozox)	Mint	Two-spotted Spider Mite	Only one application of Onager is permitted per year. Mint cannot be harvest less than 30 days after application.
Fusilade DX (fluazifop-butyl)	Fine Fescue Grass Grown for Seed	Downy Brome (<i>Bromus tectorum</i>), Quackgrass (<i>Agropyron repens</i>), Bentgrass (<i>Agrostis</i> spp.), Volunteer Grains	Not for use on Tall Fescue. Do not apply after seed head reaches boot stage. Treated fields cannot be grazed or harvested for forage until after the seed crop has been harvested. A maximum of 64 fluid ounces of product can be applied per acre per year.
Supracide 2E (methidathion)	Timothy or Timothy-Alfalfa stands	Grass Scale (<i>Eriococcus insignis</i>), Thrips and Spider Mites	This product is highly toxic to bees, and therefore must be applied pre-bloom. A maximum of 2 pints of product may be applied per acre per cutting. Do not allow grazing of the crop by any animal that will enter the human food chain. Cannot be harvested prior to 21 days after application.

Section 18

Please Note: It is a violation of Federal Law to use these products in a manner inconsistent with the updated, EPA stamped label. This label must be in possession of the user at the time of pesticide application.

Name	Crop	Pest	Notes
Outlook (dimethinamid-P)	Sugarbeets	Hairy Nightshade, Redroot Pigweed, Yellow Nutsedge	Valid until July 15, 2004. For use only in the following counties: Ada, Bannock, Bingham, Blaine, Canyon, Cassia, Elmore, Gem, Gooding, Jerome, Lincoln, Minidoka, Owyhee, Payette, Power, Twin Falls, and Washington. For effective control, Outlook needs to be incorporated immediately after application (by tillage or by irrigation). Apply after the sugarbeet has reached the 2 leaf stage, but before it has exceeded the 12 leaf stage. Outlook will not control already emerged weeds. To protect aquatic species, it is necessary to leave a 50 foot untreated buffer between the treated area and fish-bearing waters. See label for plant-back, re-plant and rotational crop restrictions.
Aim (carfentrazone-ethyl)	Hops	Hop suckers	Valid until August 15, 2004. Maximum of 4 applications per season with a minimum of 14 days between treatments. Drift minimization is imperative because all plants that come into contact with the herbicide spray will be desiccated. Hops cannot be harvested less than 7 days after application (i.e., pre-harvest interval is 7 days). There are additional precautions associated with this product due to its toxicity to fish, including an untreated buffer strip of 10 feet when spraying near fish bearing waters.
Rally 40W (myclobutanil)	Hops	Powdery Mildew	Valid until September 1, 2004. For use only in Canyon and Boundary counties. No more than 4 applications per acre per season should be applied. Resistance management is important with this product; therefore, no more than 2 consecutive applications can be made without alternating (for at least one application) to a fungicide with a different mode of action. Do not re-enter treated area less than 48 hours after application (i.e., re-entry interval is 48 hours). Wait at least 14 days after application to harvest (i.e., pre-harvest interval is 14 days). Do not graze livestock on treated areas or harvest crops in treated areas for silage or hay.

Section 18 (continued)

Name	Crop	Pest	Notes
CheckMite+ (coumaphos)	Honeybee Colonies	Varroa Mites (<i>Varroa</i> spp.) and Small Hive Beetles (<i>Aethina tumida</i>)	Valid until February 1, 2005. Do not treat more than twice per season for Varroa mites or four times per season for Small Hive Beetles. Do not leave strips in beehives for more than 45 days. This product is toxic to birds, fish and invertebrates, so it cannot be applied directly to any body of water. Do not contaminate water when disposing of used strips.
Api Life Var (thymol, eucalyptus oil and menthol)	Honeybee Colonies	Varroa Mites (<i>Varroa</i> spp.)	Valid until November 8, 2004. Best used when average daily temperatures are between 59° to 69° F. Not to be used when temperatures exceed 90° F. Maximum of 2 treatments per year. Tablets must be removed a minimum of 30 days before harvest. Do not apply when bees are robbing. Do not use during honey flows. Do not use when surplus honey supers are installed. Do not harvest honey from brood chambers or colony feed supers.
Dividend Extreme (difenoconazole)	Sweet Corn Seed	Penicillium Die-back and Damping-off	Valid until March 19, 2005. May be used in combination with the following fungicides: Maxim 4FS; Apron XL LS; Cruiser 5FS; Allegiance FL and LS; Lorsban; Carboxin; Captan. Do not re-plant to any crop other than wheat within 30 days of planting Dividend treated seeds.
Gustafson LSP (thiabendazole)	Lentil Seed	Seedborne Ascochyta Blight	Valid until June 1, 2004. Do not graze or feed livestock on treated areas for 4 weeks after planting. Chemical is toxic to fish – do not apply directly to any body of water. Treated seed may be toxic to birds and other wildlife – clean up spilled seed immediately.
Mertect LSP (thiabendazole)	Lentil Seed	Seedborne Ascochyta Blight	Valid until June 1, 2004. Do not graze or feed livestock on treated areas for 4 weeks after planting. Chemical is toxic to fish – do not apply directly to any body of water. Treated seed may be toxic to birds and other wildlife – clean up spilled seed immediately.

Section 18 (continued)

Name	Crop	Pest	Notes
Mycoshield (oxytetracycline)	Apples	Fire Blight (<i>Erwinia amylovora</i>)	Valid until August 1, 2004. For use only in the following counties: Canyon, Gem, Payette, Owyhee and Washington. To be applied with ground equipment only. Do not harvest earlier than 60 days after application (i.e., pre-harvest interval is 60 days). Do not re-enter treated area less than 12 hours after application (i.e., re-entry interval is 12 hours). A maximum of 5 applications is allowed per acre per year; 3 during bloom and 2 afterwards, if necessary. The use of predictive models for fire blight infection is recommended before treatment.
Prozap (zinc phosphide) Pellets	Alfalfa Hay	Field mice and Meadow Voles	Valid until May 23, 2004. A maximum of two applications per season is allowed. Do not apply to actively growing alfalfa if new growth has reached two inches. It is necessary to contact the Idaho Department of Fish and Game prior to applying zinc phosphide in Adams, Gem, Payette, Washington and Valley counties to ensure that the Idaho ground squirrel and the southern Idaho ground squirrel are not endangered.
Warrior (lambda-cyhalothrin)	Barley	Russian Wheat Aphid, Cereal Leaf Beetle, Cutworms, Armyworms	Valid until July 30, 2004. Wait at least 30 days after application to harvest crop. There are additional precautions associated with this product due to its toxicity to fish and aquatic organisms. These include: not applying the chemical directly to any body of water; leaving an untreated buffer strip of 25/150 (land application/aerial application) feet when spraying near fish bearing waters; using large droplet sizes, and not cultivating within 10 feet of an aquatic area to allow the growth of a vegetative filter strip.

For more information on Section 18 labels, check the ISDA website: <http://www.agri.state.id.us/agresource/section18.htm>
 For more information on Section 24c labels, check the ISDA website: <http://www.agri.state.id.us/agresource/section24%20c.htm> , or contact George Robinson at (208) 332-8593, or grobinso@agri.state.id.us.