



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

Black Fly Infestations in Treasure Valley

Striped black flies, *Simulium vittatum*, have become a problem in the Treasure Valley, with infestations reported in Malheur, Payette, Washington, Canyon, Gem and Owyhee counties. Black flies are mainly pests of horses and cattle. Infestations can lead to a decrease in performance, trampled calves, and an increase in respiratory diseases in calves. They often swarm around humans, negatively affecting outdoor activities, but they do not bite humans, nor do they feed on food crops. Adulticides offer limited control of black flies. Therefore, cultural methods (e.g., keeping livestock in the shade to reduce the incidence of black flies) and larval control are more practical options. Ed Bechinski, Extension IPM Coordinator at the University of Idaho, has compiled a list of commercially

available insecticides that can be used in Idaho for application directly to livestock animals, or for application in or around livestock buildings to control adult black flies. That publication can be found on the Idaho Pest Management Center website,

http://www.ag.uidaho.edu/ipm/INSECTICIDES_FOR_BLACK_FLY_CONTROL_ON_LIVESTOCK.pdf . For

further information, contact Ed Bechinski, 208.885.5972 edb@uidaho.edu, Marni Porath, Oregon State University Malheur County Extension, 541.881.1417, Ben Simko at the Idaho State Department of Agriculture(208) 332-8620 bsimko@idahoag.us , or Jim Barbour at the University of Idaho Parma Research and Extension Center, 208-722-6701 (ext. 242) jbarbour@uidaho.edu.

Protection from West Nile Virus (WNV)

Twenty-four states have reported human cases of WNV in 2004. Western states with human cases include California (102), Nevada (2), Wyoming (3) and Colorado (44). Hardest hit this year is Arizona with 274 reported human cases. Utah and Idaho have both reported animal cases of WNV, and no reports of WNV (human or animal) have come from Washington, Oregon or Montana. The most effective way to avoid WNV is to avoid being bitten by mosquitoes. This can be accomplished by eliminating mosquito habitat, repairing and/or installing screens, and by using mosquito repellents containing DEET (N,N-diethyl-meta-toluamide).

Following are some ways to eliminate mosquito habitats around your house or farm:

- Eliminate sources of standing water since this is where mosquitoes lay their eggs.
- At least once a week, drain water from flower pots, pet food and water dishes, bird baths, swimming pool covers, wading pools, plastic swimming pools, buckets, barrels and cans.
- Check for and clean clogged rain gutters.
- Remove old tires or other things around the yard that will collect water.
- Consider treating drainage ditches on the farm or storm drains surrounding the farm. This can be done with Mosquito Dunks®, which are small pellets containing *Bacillus thuringiensis israelensis*, which are added to the water and can control mosquito larvae for 30 days.

Following are ways to avoid being bitten by mosquitoes:

- Wear long sleeves and long pants.
- When possible, minimize outdoor time during dusk and dawn, when mosquitoes are most active.
- Place mosquito netting over infant carriers when outdoors.
- Use insect repellents with DEET whenever you go outdoors. A higher percentage of DEET does not increase the effectiveness of the repellent, it just increases the amount of time that repellent will last. For instance, repellents with 23.8% DEET will last for 5 hours, whereas repellents with 6.65% DEET will only last for 2 hours.

- Clothing can be sprayed with repellents containing DEET or permethrin, but permethrin should NEVER be sprayed on skin.
- Do not apply repellent to cuts, wounds, irritated skin or skin under clothing.
- Do not use aerosol or pump sprays in enclosed areas and do not apply them directly to your face. It is better to spray the repellent into your hands, then rub it onto your face.
- After returning indoors, wash the treated area with soap and water.

Following are special considerations for using insect repellents on children:

- No serious illness has ever been linked to the use of DEET in children.
- Some guidelines say that repellents with a low concentration of DEET can be applied to infants over 2 months, whereas other sources say it is not acceptable to apply repellent to children under 2 years of age. It is recommended that you consult with your health care provider before putting DEET repellents on small children. The National Pesticide Information Center (NPIC, see details below) can also be consulted, 1.800.858.7378.
- Avoid contact of repellents with kids' eyes and mouth.
- Do not allow small children to apply DEET to themselves.
- Do not put DEET repellent on kids' hands because it may end up in their mouths.

West Nile Virus Information Sources

National Pesticide Information Center (NPIC)

NPIC is a cooperative agreement between the United States Environmental Protection Agency (EPA), and Oregon State University. It is a nationwide service that provides objective, science-based information on pesticides. NPIC has developed a West Nile Virus Resource Guide, which compiles available information on the virus and pesticide related topics, including insect repellents, especially on children, background information on WNV and links to state and federal WNV information. Visit the website, <http://npic.orst.edu/wnv/>, or call 800.858.7378. NPIC resources are also available in Spanish.

U.S. Environmental Protection Agency (EPA)

Presented on the EPA website, <http://www.epa.gov/pesticides/factsheets/skeeters.htm>, is detailed information about the use of pesticides for mosquito control and about insect repellents containing DEET, which is a pesticide that is registered and regulated by EPA.

Centers for Disease Control and Prevention (CDC)

The CDC website, <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>, gives detailed information about how to avoid mosquito bites, has national maps of current WNV activity and has an extensive list of WNV frequently asked questions on topics ranging from insect repellents to horse vaccinations. Also available on the website are links to WNV brochures and publications.

Idaho Department of Health and Welfare

The Department of Health and Welfare website, http://www2.state.id.us/dhw/cdp/westnile/west_nile_index.htm, has links to WNV reports by Idaho counties that are updated regularly, general information on WNV, and frequently asked questions for horse owners.

Horse Contracts West Nile Virus in Canyon County

In June, the first equine case of WNV in Idaho in 2004 was reported in Canyon County. There have been no human cases so far this year. Over the past 2 years, 600 horses from 20 states have been infected with WNV. The mortality rate for those horses was 36%. There is a 2-dose vaccine for horses, but they must be vaccinated with both doses at least 3 weeks prior to mosquito exposure. It is important that horse owners maintain horses' immune systems to keep them strong enough to resist the virus. This includes keeping current on important vaccines, proper nutrition and parasite control. Some symptoms that may indicate a horse has contracted West Nile Encephalitis are: lack of coordination and stumbling (most commonly described symptom); depression or apprehension; weakness of the hind limbs; falling down or inability to rise; muscle twitching; grinding teeth; colicky appearance; hypersensitivity; excessive sweating; disorientation; convulsions and paralysis.

Pest Alert

Powdery Mildew in Sugarbeets

Powdery mildew was found at the west end of the Magic Valley in the Bell Rapids area on July 28, and in Cassia County on July 30. It was previously found in the Treasure Valley, Wilder and Star areas. From historical evidence, we expect that powdery mildew is already present in Buhl, and possibly in Twin Falls. This is about two weeks earlier than is normal for the area.

Timing of the fungicide application just before infection takes place or when the pathogen population is low is critical for the greatest economic benefit. Apply treatment early when the disease is first detected in the field or in the area. You can find the results of powdery mildew fungicide trials for the last three years done by Dr. John Gallian, University of Idaho Sugarbeet Specialist, on the sugarbeet website: www.uidaho.edu/sugarbeet.

In addition, black bean aphids, loopers and other worms have been found in several sugarbeet fields around the area. An insecticide can be tank mixed with a fungicide to treat both pests at the same time.

Laredo is not available this year to treat powdery mildew in sugarbeets. Recommendations from Dr. Gallian include:

- Avoid use of chemicals with the same mode of action per year more than once per year on the same sugarbeet field.
- Consider adding 5 pounds of sulfur to each treatment in order to fight resistance.
- Contact your AMSCO field representative if you have any questions.

The Treasure Valley Pest Alert website, <http://www.tvpestalet.net/index.php3>, has links to information about these pests, including photos, identification information and management options. Included in this information are treatment levels for black bean aphids, which allow you to determine if your infestation should be treated, and suggested caterpillar injury thresholds to determine the need for insecticide treatment.

Pest Alert

Late Blight in Potatoes

Late blight was confirmed in Minidoka County on July 30, and recently in Bingham County. The weather has been extremely favorable for late blight and thunderstorms have the potential to spread the spores widely across the eastern portion of the state. Disease forecasting models indicate that 2004 may be a late blight year. It is important to apply protectant fungicides just prior to row closure and again 7 days later. Scout wet field areas weekly after row closure. If you have any questions, please contact Jeff Miller at 397-4181. The Treasure Valley Pest Alert website has links to UC late blight page as well as links to sampling methods, economic thresholds, chemical, cultural and biological controls.

It is important to keep in mind that most late blight fungicides are like sunscreen. They offer good protection wherever the plant comes into contact with the fungicide, but only offers short-term protection. If you have not applied a fungicide in the last week, apply as soon as possible. As long as the current weather pattern persists, fungicides should be applied on a weekly schedule.

University of Idaho Potato Specialists recommend using standard protectant fungicides, such as EBDC or chlorothalonil are effective. Performance can be improved by adding Curzate, Acrobat, Previcur, or SuperTin, but these are only add-in fungicides which should not be used alone. Gavel and Omega are two stand-alone products that are extremely effective against late blight. For more information, visit the University of Idaho's Potato Pathology Website, <http://www.ag.uidaho.edu/potatopath>, or call the following University of Idaho Extension Personnel.

Treasure Valley:

Mike Thornton, 208.722.6701

Magic Valley:

Nora Olsen, 208.736.3600 or 208.423.6621

Eastern Idaho:

Phil Nolte, 208.529.8376

Bill Bohl, 208.785.8060 or

Jeff Miller, 208.397.4181

Pest Alert

Green Peach Aphid in Potatoes

University of Idaho Extension Specialists have reported colonizing green peach aphids in the Treasure and Magic Valleys. Carefully scout fields and apply appropriate insecticides as necessary. The Treasure Valley Pest Alert website, <http://www.tvpestalet.net/index.php3>, has links to the IPM Program for Green Peach Aphid/Potato Leaf Roll Virus for PNW Potatoes, A Green Peach Aphid fact sheet with photos for identification and the UC Pest Management guidelines for aphids in potatoes.

Pest Alert

Early Blight in Potatoes

We have reached the threshold (P-Days) for early blight in the American Falls, Aberdeen, Twin Falls and Treasure Valley areas. Now is a good time to apply a fungicide with good activity on early blight. Please contact Jeff Miller at 208.397.4181 if you have any questions. An application of a higher quality early blight material (strobilurin) is warranted if early blight is a concern.

Pest Alert

Spider Mites in Various Crops

Various sources have identified fields of Russet Burbank potatoes in the Parma area, garden seed bean fields south of Nampa, and corn and alfalfa seed fields that have significant numbers of spider mites in them and may require a border spray. High populations of spider mites can significantly damage crops in several days. See the Treasure Valley Pest Alert website, <http://www.tvpestalet.net/index.php3>, for more details about spider mites and their management.

Pest Alert

Corn Earworm

According to the Oregon State University Growing Degree Day (GDD) model for Corn Earworm, we are currently at 1313 GDD in the Caldwell area. Maximum numbers of first generation moths begin laying eggs in corn silk at 1300 GDD. Eggs hatch a few days later and larvae will begin feeding on ears. The second generation of corn earworm moths will lay eggs in the silk of corn between 1450 and 1650 GDD. We will be at 1650 GDD on about August 11. It is important to increase field scouting and to take control measures.

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

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.

Idaho Potato Farmers Exploring Green Manures as Replacement for Chemical Fumigation

On July 20, 2004, the Shoshone-Bannock Tribes hosted a Green Manure Potato Expo to present results from their Alternative Cropping Demonstration project. Growers and Researchers explored several green manures, namely mustards and radishes, as possible alternatives to chemical fumigation in wheat-potato rotation systems. Potato yields and quality, economic returns, soil biological parameters and plant and soil nutrient levels were measured in plots where green manures were incorporated, and compared to the same parameters in plots where Metam Sodium and Carbofuran fumigants were used. The demonstration project showed that it is feasible for farmers to add a mustard or radish green manure crop to their rotation on the Reservation. This project marks the beginning of a body of research into green manures, particularly into the optimization of green manure production methods to minimize additional fertilizer and water inputs. Researchers from the University of Idaho, Western Ag Research and Washington State University were present, as well as representatives from the Northwest Coalition for Alternatives to Pesticides and Potato Growers of Idaho. The Alternative Cropping Demonstration was sponsored by the Shoshone-Bannock Tribal Business Council, the Tribes' Land Use Policy Commission, Agricultural Resource Management Department, the Northwest Coalition for Alternatives to Pesticides, Three Rivers RC&D Council, Western Ag Research, the University of Idaho Extension, USDA-NRCS and EPA Region IX.

EPA Proposes Critical Use Exemption for Methyl Bromide

Under the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, the United States, along with 113 other countries, agreed to phase-out the use of Methyl Bromide by January 1, 2005. Critical Use Exemptions are anticipated under the Montreal Protocol for circumstances where there are no technically and/or economically feasible alternatives. The U.S. is one of 11 countries, including Italy, Spain, France, Australia, Belgium, Canada, Greece, Japan, Portugal and the U.K., that have been given critical use exemptions. EPA is currently discussing options for allocation of the exemptions to American farmers; they plan to publish the proposed rule on the Federal Register and open it to public comment. See future issues of this newsletter for more details on the public comment period. For more detailed information about the critical use exemptions, see the EPA website:

<http://www.epa.gov/ozone/mbr>.

Searchable Database for Pesticide Resistant Species

The resistant pest management team at the Center for Integrated Plant Systems at Michigan State University has developed a database entitled, "Arthropods Resistant to Pesticides". It contains over 3,000 records and is a web-based compilation of resistance cases. The website, <http://www.pesticideresistance.org/DB/>, can be used to search by species, pesticide, region, or citation.

Weeding the Garden Organically

The Crop and Soil Science Department at Cornell Univ. have developed an Organic Weed Management website. The purpose of this site is to provide organic gardeners with useful weed background and management information, and it includes a weed database containing information on many plants that are considered common garden weeds and includes identification with a photo, management suggestions, and other information. For more details, visit the website,

<http://www.css.cornell.edu/weedeco>.

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, and leaving an untreated buffer strip of 25/150 (land application/aerial application) feet when spraying near fish bearing waters.

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
Discipline 2EC (bifenthrin)	Alfalfa and Clover grown for seed	Aphids, Lygus Bugs, Spider Mites, Thrips, Weevils	No more than 19.2 fl. oz. of product (0.3 lb active ingredient) may be applied per acre per season (3 applications at a maximum rate of 6.4 fl. oz. product per acre). 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, not applying product when wind speed exceeds 7 MPH, and not cultivating within 10 feet of an aquatic area to allow the growth of a vegetative filter strip. Do not harvest current year's crop for hay, forage, food, feed, or oil. All treated alfalfa and clover seed treated with Discipline 2EC must be tagged "Not for human consumption". This product is toxic to bees and must not be applied to blooming alfalfa or clover if bees are present.

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
Success (spinosad)	Onions	Thrips	Valid until Aug. 31, 2004. Treatments must be at least 5 days apart with a maximum of 4 applications per calendar year. No more than 21 fl. oz. of product (0.33 lb active ingredient) of product can be applied per acre per crop. Do not apply within 3 days of harvest. This product is toxic to bees and should not be applied or allowed to drift on blooming weeds or crops when bees are present. This product is also toxic to aquatic invertebrates, and therefore cannot be applied directly to water.
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.
FujiMite 5EC (fenpyroximate)	Hops	Spider Mites	Valid until Sept. 15, 2004. A maximum of 2 ground applications at a rate of 32 - 48 fl. oz. product per acre may be made per season. Do not exceed 96 fluid ounces of product per acre per season. Do not make subsequent applications without rotating to at least two other miticide products between applications. Do not apply within 21 days of harvest. Do not apply through any type of irrigation system.
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.

Section 18 (cont.)

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.
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 replant to any crop other than wheat within 30 days of planting Dividend treated seeds.

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.