



Pesticide Notes

A bi-monthly newsletter from the
Michigan State University
Pesticide Education Program



Vol XII, Number 5, September - October 1999

In This Issue

Feature Articles

24 (c) Special Local Needs Pesticide Registrations and Section 18 Emergency Exemptions	2
New Pesticide Applicator Identification Numbers to be Assigned	4

Chemical Update

Residue Tolerances	5
Label Additions/Changes	6
Label Deletions/Cancellations	6
New Registrations	6
Miscellaneous	6

News Extras

Mosquito-borne Encephalitis in Michigan and Comments on the West Nile Situation in New York City	7
Atrazine Management and Water Quality	8
Frog Deformities Linked to Pesticides	9
Compliance with Worker Protection Standards Reported to be Low	9

Resources

National Pesticide Telecommunications Network	9
New Manual - Vertebrate Pest Management, Category 7D	10

Pesticide Applicator Recertification Seminars	10
Pesticide Education and PIAP Staff Directory	11



24(c) Special Local Needs Pesticide Registrations and Section 18 Emergency Exemptions

Robin Rosenbaum, Pesticide Registration Manager, Michigan Department of Agriculture

With the passage of the Food Quality Protection Act of 1996 several pesticide registrations will be lost on many Michigan crops. As critical registrations are lost, growers may be forced to rely on alternative pesticide registrations to help “bridge the gap” until new, reduced-risk pesticides or alternative pest management practices can be established.

So what are these alternative pesticide registrations and where do they come from? Primarily, they consist of section 24(c) special local needs registrations and section 18 emergency exemptions. Both registrations refer to sections in the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and both registrations allow for the use of a pesticide on a site/crop for which it is not federally registered. So, what is the difference between these registrations? To help answer that question, the following is a brief description of the two registrations, the requirements for an application, the duration of the registrations and a few miscellaneous notes.

Section 24(c) or Special Local Needs (SLN) Pesticide Registrations:

A special local need is defined under 40 CFR, Part 162, subpart D, as “an existing or imminent pest problem within a state for which the state lead agency has determined that an appropriate federally registered product is not sufficiently available.” Requests for SLN registrations come directly from the pesticide registrant and unlike section 18 exemptions, the use must be covered by an existing tolerance or exemption from a tolerance if it is for use on a food crop. The registrant must provide the following supporting information to Michigan Department of Agriculture (MDA) for review:

- EPA SLN registration form 8570-25.
- Residue and product toxicology data.
- Evidence that a tolerance exists for the proposed use.

- A proposed SLN label.
- A letter describing in detail how the proposed registration will satisfy a special local need in this state. The letter must include information on why currently registered pesticides cannot satisfy the special local need.

If MDA determines that a special local need exists and the data supports the registration, an SLN registration is issued by MDA and is effective immediately. EPA must be notified of the registration within ten working days. EPA has ninety days during which they may ask the state to revoke the registration if they feel that the registration may cause adverse effects or the registration does not satisfy the criteria for a “special local need.” If the registration is not revoked, it will be valid for a period of five years. These registrations are often referred to as state registrations because unlike emergency exemptions, they are evaluated and issued by the state.

Once a 24(c) registration is issued, the registrant will supply 24(c) labels with the product at the point of sale. Growers must obtain a copy of the 24(c) label in order to use the product for the SLN use. In most cases, growers need to ask their dealer for a copy of the 24(c) label since it is not affixed to the container and the dealer won’t necessarily know that a 24(c) label exists. 24(c) labels have an expiration date that must be adhered to. MDA issues approximately five to ten SLN registrations per year.

Section 18 Emergency Exemptions:

Section 18 of FIFRA authorizes the EPA to exempt state and federal agencies from any provision of FIFRA if it is determined that “emergency” conditions exist which require an exemption. An emergency condition is an “urgent, non-routine situation which could not reasonably have been anticipated and accounted for by the registration procedures of section 3



(federal registration) and will have dire consequences if the exemption is not granted.” Section 18 exemptions primarily allow the use of a pesticide (sometimes an unregistered pesticide) on a site for which it is not federally registered. MSU Extension specialists inform MDA when such an emergency situation exists. MDA then works with the Extension specialist to prepare a section 18 exemption application for submission to EPA. Section 18 exemption applications are very comprehensive and must include the following information:

- Product information
- Number of acres treated statewide
- Application rate, method, duration, etc.
- Estimate of residue levels and supporting data if the request is for use on a food crop.
- Detailed discussion of potential risks from the proposed use.
- Letter of support from the registrant.
- Discussion on the progress being made toward federal registration of the proposed use.
- Detailed discussion on the anticipated economic loss associated with the emergency conditions—must include five years of yield and price data along with cost of production information.
- Detailed discussion and supporting data on why registered alternatives will not control the pest.
- Discussion on what brought about the emergency situation.
- Final report from the previous year if this is a repeat section 18 exemption request.

When the EPA grants a section 18 emergency exemption, MDA sends a letter to the registrant informing them of EPA’s decision and requiring them to register the product with the state. They are also advised to supply section 18 exemption labels with the product at the point of sale. Section 18 emergency exemption labels are valid for one growing season, and therefore, growers must obtain a new section 18 label each year a section 18 exemption is granted for a specific use.

As a condition of EPA granting section exemptions in Michigan, MDA must conduct three to five section 18 follow-up inspections per section 18 exemption. These inspections occur throughout the growing season and are a critical component in the subsequent year’s section 18 exemption request (if there is one). To assure future section 18 use of pesticides, it is imperative that MSU Extension Agents work with MDA to locate growers using section 18 pesticides for the follow-up inspections.

Section 18 emergency exemptions are requested and granted to avert “significant economic losses” to Michigan growers. The projected loss figures presented to EPA in support of section 18 emergency exemptions range from one to several million dollars. MDA petitions EPA for approximately ten to eighteen section 18 emergency exemptions per year.



New Pesticide Applicator Identification Numbers to Be Assigned

Gina M. Davis, Pesticide Certification Manager, Michigan Department of Agriculture

The Michigan Department of Agriculture (MDA), Pesticide and Plant Pest Management (PPPM) Division has been using social security numbers as certification and registration numbers for private, commercial and registered applicators since July of 1992. Social security numbers were selected because they facilitated the "pre-assignment@ at examination sites of a unique and identifiable number which was, for the most part, possessed and readily known by all applicators.

It has recently been brought to our attention that Enrolled Senate Bill No. 797, which became effective on June 30, 1998, greatly impacts our use of social security numbers in the certification program. This bill amended Act 236 of 1996, now titled the *Regulated Occupation Support Enforcement Act*.

Section 4a of Act 236 states "In order to facilitate the enforcement and administration of this act and as required to comply with federal law, an occupational regulatory agency shall require each applicant for a license or renewal of a license to include his or her social security number on the application form. An occupational regulatory agency shall not issue or renew a license unless the applicant's social security number is on file with the occupational regulatory agency as required to comply with federal law.

An occupational regulatory agency shall not display a licensee's social security number on the licensee's occupational license.@

In order to comply with this new legislation, it has become necessary for MDA's Pesticide and Plant Pest Management Division to modify the Pesticide Applicator Certification system, to ensure that social security numbers are not issued on certification and registration cards.

Certification Program Modifications

Effective September 1, 1999, all initial and renewal applicants for certification or registration who have successfully completed all requirements will be issued a new nine-digit certification number. By maintaining a nine-digit number, there will be minimal impact on the forms (exam and seminar bubble sheets) currently being utilized. We are also hopeful that this will minimize computer-programming problems for those restricted use pesticide (RUP) dealers who are maintaining RUP sales data electronically.

Applicator Notification

All applicators with certification or registration credentials that expire 12/31/99 will receive their new number/card as part of their renewal process. Renewal notices are scheduled to be mailed on or about October 4, 1999. These renewal notices will have the new numbers printed on them. As applicators complete their renewal process, they will be mailed their certification and registration cards with their new applicator number.

All other currently certified applicators (approximately 17,726) will be issued a new number/card via mass mailing which is also scheduled to occur in early October 1999.

Restricted Use Pesticide (RUP) Dealer Notification

Because restricted use pesticide (RUP) dealers are responsible for reporting sales of RUP's, including applicator certification numbers, it is important that they be informed early about these changes. All currently licensed RUP Dealers were notified of this change in early September. RUP dealers have been advised that for the period September 1, 1999 through December 31, 1999, they may record either social security numbers or new applicator numbers for RUP sales reporting purposes. Effective January




1, 2000, RUP dealers must begin reporting *only* new applicator numbers. The only exception to this will be for new applicants who have completed certification requirements (have been issued their "temporary certification") but have not yet received their card. These applicants may purchase RUP's using their social security number until they have received their permanent certification card.

As with any program change, a tremendous amount of outreach will be necessary in order to:

1. **Educate** all who may be impacted by the program change
2. **Provide Assistance** where necessary.


In addition to the notification efforts described above, we will be pursuing additional outreach activities including, presentations to industry personnel and articles in training/industry publications.

If you have any specific questions about these program changes, please feel free to contact Gina Davis at 517-373-9752.



Chemical Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by MSU Extension.



*Products are listed by trade name with active ingredient name and manufacturer following. Please note that multiple manufactures may make the same product. A change in the registration, formulation, or label of a product from one manufacturer **may not apply** to the same product made by another manufacturer. If you have any doubts about the status of a pesticide, please read a current label and/or check with the manufacturer directly.*

Residue Tolerances:

Insecticides

- Capture (bifenthrin; FMC)—proposed to establish residue tolerances on artichokes at 1 ppm, cucurbit vegetables at 0.4 ppm, edible podded legume vegetables at 0.2 ppm, eggplant at 0.05 ppm, rape seed and canola at 0.05 ppm, head and stem brassica vegetables at 0.6 ppm, cabbage at 4 ppm, and succulent shelled peas and beans at 0.5 ppm. Comments were due by 6/18/99.
- Capture (bifenthrin; FMC)—proposed to amend an existing tolerance on corn forage from 2 ppm to 3 ppm and to establish residue tolerances in sweet corn at 0.05 ppm. Comments were due by 6/18/99.



- Diazinon (Norvarits)—proposed to revoke residue tolerances on birdsfoot trefoil, birdsfoot trefoil hay, grass hay, and soybeans. Comments were due by 7/23/99.
- Proclaim (emamectin benzoate; Novartis)—residue tolerances established on brassica crops, celery and head lettuce at 0.025 ppm.
- Success (spinosad; Dow AgroSciences)—at the request of the IR-4 Project, time-limited residue tolerances were established on sweet corn at 0.02 ppm, sweet corn forage at 0.6 ppm and sweet corn stover at 1 ppm (expires 6/20/01). Also, residue tolerances set on tuberous and corm vegetables at 0.02 ppm.

Herbicides

- Dual (metolachlor; Novartis)—proposed residue tolerances on sunflower seed at 0.5 ppm, sugarbeet tops at 15 ppm, sugarbeet roots at 0.5 ppm, sugarbeet dried pulp at 1 ppm, and sugarbeet molasses at 3 ppm. Comments were due 6/25/99.
- Maverick (sulfosulfuron; Monsanto)—residue tolerances established on wheat grain at 0.02 ppm, wheat forage at 4 ppm, wheat hay at 0.3 ppm and wheat straw at 0.1 ppm
- Poast (sethoxydim; BASF)—in cooperation with the IR-4 project, the expiration dates were removed for residue tolerances on asparagus, carrots, cranberries and mint.
- Touchdown (sulfosate; Zeneca)—residue tolerances established on soybean seed at 21 ppm.



Fungicides

- Dividend (difenoconazole; Novartis)—residue tolerances established on wheat forage at 0.1 ppm, wheat grain at 0.1 ppm and wheat straw at 0.1 ppm.
- Elevate (fenhexamid; Bayer/Tomen)—residue tolerances established on grapes at 4 ppm, strawberries at 3 ppm and raisins at 6 ppm
- Formaldehyde—proposed to revoke residue tolerances on cereals, corn, sorghum, alfalfa, bluegrass, brome grass, clovers, cowpeas, fescues, lupines, orchard grass, ryegrass, soybean hay, timothy and vetch since there are no registered uses on these. Comments were due by 7/23/99.
- Rovral (iprodione; Rhone-Poulenc)—residue tolerances established on ginseng at 4 ppm.
- Sovran (kresoxim-methyl; BASF)—residue tolerances established on apple pomace at 1 ppm, grapes at 1 ppm, pome fruit at 0.5 ppm and raisins at 1.5 ppm.



Label Additions/Changes:

Insecticides

- Ammo (cypermethrin; FMC)—control of aphids on green onions added to the label.
- Asana XL (esfenvalerate; DuPont)—use on mustard greens added to the label.

Herbicides

- Manage (halosulfuron; Monsanto)—use on roadsides and industrial sites for horsetail control added to the label.

Fungicides

- Botran (dicloran; Gowan)—use on Florence fennel added to the label.
- Maxim (fludioxonil; Novartis)—use on canola and sunflower added to the label.
- Ziram (UCB Chemicals)—can now be used on grapes, blackberries, and blueberries.



Label Deletions/Cancellations:

Insecticides

- Oftanol (isofenphos; Bayer)—all registrations for this product were voluntarily cancelled. EPA will permit the sale, distribution and use of the product that is already in the hands of dealers and users.

New Registrations:

Insecticides

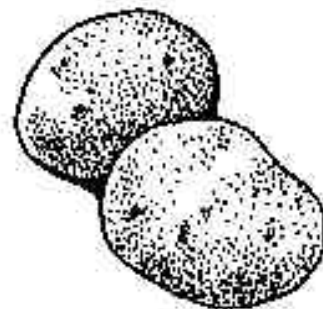
- Varsity Fire Ant Bait (avermectin; Novartis)—a new formulation to control fire ants on turf, lawns and landscapes.

Herbicides

- Milestone (azafenidin/DPX-R-6447; DuPont)—applied to register this new active ingredient to control annual broadleaf weeds and grasses in woody crops, hybrid poplar plantations, and non-crop industrial sites and turf. Comments were due by 6/25/99.
- Outrider (sulfosulfuron; Monsanto)—registered for use on roadsides and industrial areas.
- Rave (triasulfuron/dicamba; Novartis)—registered for use on winter and spring wheat and barley, rangeland and pasture.

Fungicides

- Dithane DF or Rainshield NT (mancozeb; Rohm & Haas)—a new formulation for use on potatoes to control early and late blights with increased rainfastness.
- Sovran (kresoxim-methyl; BASF)—registered for use on apples, pears, and grapes.



Miscellaneous:

- **Agrevo** plans to introduce Liberty Link (glufosinate-tolerant) rice in the U.S. in 2001.
- **Pioneer HiBred** plans to build a sorghum research center in Manhattan, Kansas.

Source: *Ag Chem News*, 7/15/99





Mosquito-borne Encephalitis in Michigan, and Comments on the West Nile Virus Situation in New York City

There are three different types of mosquito-borne viruses in Michigan that cause encephalitis in people. All are very rare, but some can cause severe disease. Eastern equine encephalitis (EEE) occurs in counties of southern, Lower Michigan. The disease primarily affects horses and pheasants, but rarely affects people. Since 1973, a total of 283 horse cases have been recorded (all deaths), as have thousands of penned pheasant cases (all deaths), along with a few emu and mule cases; these occurred primarily in the glacial interlobate regions of the southwestern and southeastern Lower Peninsula. Horse cases typically occur in "outbreak" years, with summers without any cases in between those years. The outbreak years have been: 1942-3 (ca 469 horse cases); 1973-75; 1980-1983; 1991; 1993-1995; and 1999. Human cases have occurred in the following years: 1980 (one case), 1991 (2 cases), 1993 (2 cases), 1995 (1 case), and 1997 (one case). Four human cases ended in death (1980, 1993, 1995, 1997). EEE virus exists in a swamp transmission cycle involving bird-biting mosquitoes and swamp-nesting birds, especially catbirds. A localized outbreak of EEE is currently (1999) ongoing in southeastern Barry County (four confirmed horse cases), with other confirmed horse cases in Kalamazoo County and Kent County. EEE virus is not closely related to St. Louis encephalitis virus (see below). There have been no human cases of EEE in Michigan this year. There have been human cases in Louisiana in 1999.

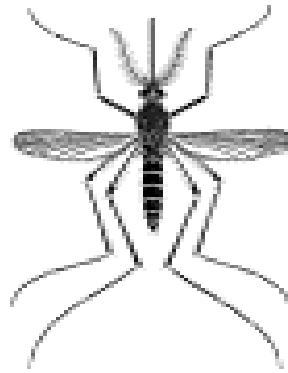
St. Louis encephalitis (SLE) is another mosquito-borne viral disease. It primarily occurs in states in the southern US, however, outbreaks have occurred as far north as southern Ontario. The current outbreak of "SLE" in New York City is unusual in that this disease has not previously been recorded there. The main mosquito vector is a bird-biting species called *Culex pipiens*. House sparrows are the birds that are primarily involved as vertebrate hosts of the virus. The only recorded outbreak of SLE in Michigan occurred in 1975, when there were 93 human cases and 3 deaths, primarily in the metropolitan areas of southeastern Lower Michigan. This outbreak was part of a larger epidemic that covered most of the eastern United States. Most of the recent (1990's) outbreaks of SLE have occurred in peninsular Florida,

New Orleans, and Houston. St. Louis encephalitis is called by this name because it was first recognized as a distinct entity in an epidemic of encephalitis in 1932-1933 in St. Louis, Missouri, and in nearby Illinois.

California encephalitis is a mosquito-borne viral disease that is very rare in Michigan. The last documented case occurred in a child in the Brighton area in 1995. The virus circulates in nature between day active mammal-feeding mosquito species, and day active rodents, especially chipmunks and squirrels. The species of mosquito responsible for transmitting the Midwest form of the virus, called LaCrosse encephalitis virus, is a tree hole and tire-breeding species. Thus the 'natural habitat' of this virus is upland, mature deciduous forest, and settings where discarded tires are allowed to accumulate and collect water.

The situation in NYC is unusual for several reasons. At first, the causative agent was thought to be St. Louis encephalitis virus. However, SLE had never previously occurred in NYC, nor are there any indications that SLE is "active" in southern parts of the U.S, currently. Why then would SLE suddenly occur in NYC? Secondly, investigations of the virus involved in human cases and in bird deaths indicate that it is West Nile virus, and not SLE as previously thought. West Nile virus is closely related to SLE virus, yet it occurs only in southern Europe, Africa, and West Asia. The last known outbreak of West Nile occurred in Bucharest, Romania, several years ago. How did West Nile virus, an "old world" virus, get to the U.S.? Why NYC versus some other place? Will this virus establish along the eastern seaboard, and spread to new locations? Was this a random event? Is it a bioterrorism event? Was there a single point source or many introductions? Was the virus introduced by infected exotic birds brought to the Bronx Zoo or another zoo? Public health research teams are attempting to answer these questions as control efforts are ongoing.

The mosquitoes involved in transmitting SLE and (now) West Nile viruses in the U.S. are *Culex* mosquitoes. The larvae occur in human and animal waste water and catchment water, held in sewage lagoons, underground pipes, urban street catchbasins, and similar situations with water with high organic content. Thus, there can be large *Culex* mosquito populations in urban areas, even in dry years. In fact, dry years favor *Culex* mosquito populations because their larval habitats are better (more organic material). These mosquitoes primarily bite birds, and only rarely mammals including humans. Bird hosts of



SLE virus are typically house sparrows, mourning doves, starlings, and other urban birds. The virus circulates between mosquitoes and birds in urban areas. Thus, the potential for SLE or West Nile to occur in SE Michigan exists because we have these kinds of mosquitoes and birds in Michigan. All it takes is for the virus to be introduced to the area. Because these mosquitoes primarily bite birds, there is a question of how humans get infected. Perhaps another species of mosquito, one that bites both birds and mammals, might be involved.

SLE virus is one of five viruses forming a complex of closely related mosquito-borne viruses. Identifying these viruses requires sophisticated laboratory tests. Antibodies to these viruses may be difficult to separate one from the other. The geographic distributions and names of the viruses are:

1. **Japanese encephalitis**—eastern Asia to India and Nepal. *Culex* mosquito vectors and bird hosts. Epidemics affect thousands of people and birds annually in affected areas of Asia. Human vaccine is available.
2. **Murray Valley encephalitis**—Australia. *Culex* mosquito vectors and bird hosts. Human cases are rare.
3. **West Nile**—Europe, west Asia, Africa. *Culex* mosquito vectors and bird hosts.
4. **Kunjin**—Africa. Poorly studied virus.
5. **SLE**—Western Hemisphere, incl. N., C., S. America and Caribbean basin. *Culex* vectors and bird hosts.

Ned Walker
Entomology Department
Michigan State University

Atrazine Management and Water Quality

For the last 30 years in the Midwest, atrazine has been one of the most intensively used herbicides for pre-emergent and post-emergent weed control on corn and sorghum. Atrazine provides foliar and residual, broad-spectrum weed control, can be used with both conventional and conservation tillage systems, provides a high margin of crop safety, and is cheaper than most of its possible replacements.

Although atrazine has had numerous positive impacts on agricultural production, widespread atrazine use has had some adverse impacts. Most notably, atrazine has reached surface and groundwater at some locations. Because many of these water resources are used for drinking water, atrazine is a concern.

Several studies in the early 1980's detected atrazine and other herbicides in groundwater. Atrazine detections in groundwater especially alarmed rural residents who rely on shallow private wells for domestic drinking water.

Concerns about atrazine contamination of groundwa-

ter generated questions and prompted serious discussion in the agricultural, scientific, environmental, and regulatory communities. Questions were also raised about how farming practices might be changed to prevent atrazine contamination of groundwater.

In response to these concerns and questions, the United States Department of Agriculture (USDA) created a network of research projects at sites throughout the Midwest call Management Systems Evaluation Areas (MSEA—North Dakota, South Dakota, Nebraska, Minnesota, Iowa, Missouri, Wisconsin, and Ohio).

Research Findings

- Leaching of atrazine to groundwater does occur, but much less than was suggested by 1980's studies. MSEA research results indicate that atrazine was detected in the groundwater at some sites, but almost all concentrations of atrazine were well below the established drinking water standard.
- Groundwater is less vulnerable to atrazine contamination than surface water. Atrazine was found to mostly remain in the top 15 cm of soil in production areas until it is degraded.
- Atrazine appears to degrade faster in soils with a history of past use because populations of soil bacteria that help decompose atrazine have increased.
- Atrazine levels in surface waters are a major concern in certain locations.
- Concentrations of atrazine greater than 150 ppb were observed in surface waters at Walnut Creek, Iowa, in September 1991 and September 1994.
- Proper selection of farming practices can reduce the concentration of atrazine in both groundwater and surface water.
- Research in the northern Cornbelt sand plains has shown that, with careful management, sandy soils can be cropped while minimizing degradation to water resources.
- Atrazine seldom reached the water table in the ridge-tillage corn-soybean farming system that was common to many of the study sites.
- Herbicide banding, which reduces the amount applied from one-half to one-third the amount applied with broadcast application, can reduce leaching and decrease the potential for movement.



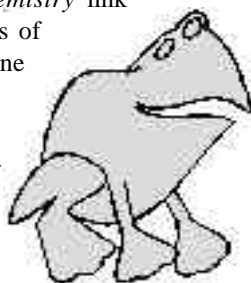
- Atrazine has the potential to move rapidly in low organic matter content sandy soils, especially where soils are irrigated.
- Lower application rates reduce potential atrazine contamination. Of all of the management factors that affect herbicide concentration and losses, the total amount of atrazine applied is believed to have the most direct and often the greatest effect.
- Improved irrigation management can reduce potential atrazine contamination.
- Careful water management and special techniques such as split N applications and banding herbicides over the row can reduce leaching of certain agricultural pesticides and fertilizers.

For a copy of "Atrazine, Midwest Studies Provide Some Answers," Iowa State University, May 1999, please contact:

Allen Krizek
Michigan State University Extension Liaison
Michigan Groundwater Stewardship Program
Michigan Department of Agriculture
PO Box 30017
Lansing, MI 48909
Telephone: 517-373-9813

Frog Deformities Linked to Pesticides

Two studies published in the October issue of *Environmental Toxicology and Chemistry* link deformities in frogs to combinations of chemicals found in pond water. In one study, six ponds in Minnesota were analyzed, three of which produced high proportions of deformed frogs. Several breakdown products of various pesticides were found in water and sediment samples from these ponds. The malformations affected the limbs, eyes, mouths and other parts of frogs.



In a second study, frogs were raised in Minnesota pond water brought into the laboratory. The water from cleaner sites did not cause malformations, but water from the ponds associated with high proportions of deformed frogs caused the same types of problems. The study found that the fungicide Maneb, and propylthiourea, a pesticide breakdown product, induced some types of hind limb defects in frogs. Researchers suspect that an interaction between chemicals (natural and manmade) is causing the deformities. The deformities were worse when certain chemicals were mixed with "clean pond" water versus water from the lab (*Star Tribune*, 10/6/99).

Compliance with Worker Protection Standards Reported to be Low

A recent survey conducted by the Farmworker Health and Safety Institute revealed that compliance with Worker Protection Standards (WPS) on exposure prevention is below the 50% level. The stronger WPS rules have been in effect since January 1, 1995 and cover areas such as preventing worker exposure, establishment of REI's, requirements for soap, water, paper towels, PPE and emergency assistance for exposed workers.

Under WPS, workers and pesticide handlers must be trained every five years. Since low compliance was reported four years after the new standards went into effect, stronger enforcement of WPS is expected (*Pest. & Tox. Chem News*, 7/29/99).





Resources



National Pesticide Telecommunications Network (NPTN)

Consider the following questions:

- My home is going to be treated with insecticides next week and I have just found out I am pregnant. Will the chemicals affect the development of my baby?
- Is it dangerous to use pesticides for insect control in my house if I have young children or pets? What precautions should I take?
- A pesticide drifted onto my yard and garden from my neighbor who was spraying her trees. Is it safe to eat the vegetables from my garden?
- My landscape service applied chemicals to my lawn. Will they harm the environment? Will they contaminate well water?



The National Pesticide Telecommunications Network (NPTN) is toll-free information service sponsored cooperatively by Oregon State University and the U.S. Environmental Protection Agency. NPTN provides objective, science-based information on a wide variety of pesticide-related subjects, including: pesticide products, pesticide poisonings, toxicology, and environmental chemistry. The NPTN is staffed by highly qualified and trained pesticide specialists who have the toxicology and environmental chemistry training needed to help callers interpret and understand scientific information about pesticides.

NPTN receives more than 20,000 calls per year. Most callers are homeowners concerned about their family's health when pesticides are being used in and around their home for the control of ants, cockroaches, termites, fleas, or garden and lawn pests. NPTN can provide information on specific pesticides used in these situations and on methods to reduce exposure. Although NPTN does not make recommendations about which pesticides to use for control of pests, NPTN can direct callers to local resources for products available in their area.

If people call with pesticide emergencies, the NPTN staff can connect them directly to the Oregon Poison Control Center or the National Animal Poison Control Center. Additionally, NPTN staff can refer calls requiring a medical background to a medically trained clinical toxicologist. They can also direct callers to appropriate agencies for assistance with pesticide incident investigations, safety guidelines, clean-up and disposal, and laboratory analyses.

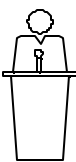
NPTN utilizes a variety of information sources including EPA documents, USDA Cooperative Extension publications, current scientific literature, and pesticide product databases. Non-copyrighted materials can be mailed or faxed to callers for the cost of postage and handling. Information is also available through the NPTN Web site at: <http://ace.orst.edu/info/nptn/>

NPTN can be reached 6:30 a.m. to 4:30 p.m. Pacific Time seven days a week, excluding holidays. Telephone: 1-800-858-7378. Fax: 1-541-737-0761. Email: nptn@ace.orst.edu

New Manual - Vertebrate Pest Management, Category 7D

The MSU Pesticide Education Program has produced a new manual for certifying commercial applicators in Category 7D, *Vertebrate Pest Management*. The manual can be ordered through the MSU Bulletin Office (Bulletin Number E-2050) and should be available October 15. The cost is \$10.70/copy. The new manual includes a color photo section of vertebrate pests and is useful to anyone needing solutions to vertebrate pest problems.






Pesticide Applicator Recertification Seminars

This partial listing of recertification seminars was provided by MDA. Certified applicators and registered technicians may earn recertification credits by attending these programs. For additional information, call the MDA Lansing office at (517) 373-1087.

NOTE: Renewal of pesticide applicator certification credentials can be done by taking the appropriate exam(s) or by obtaining the necessary number of recertification credits by attending approved seminars.



Date	Seminar	Location	Credit	Category	Phone #
10/10	Wood Preserving Workshop	Jacksonville, FL	3	Com Core,2A	(800)421-8661
10/11	Wood Preserving Workshop	Jacksonville, FL	3	Com Core,2A	(800)421-8661
10/12	Wood Preserving Workshop	Jacksonville, FL	3	Com Core,2A	(800)421-8661
10/12	IFC Pesticide Stewardship Sem-Day 1	Houston, TX	4	Com Core,7A,7C,ST,C	(913)782-7600
10/13	FISA Good Manuf. Pract.-Day 2	Houston, TX	2	Com Core,7A,7C	(913)782-7600
10/13	MAAA Educational Program	Mt. Pleasant, MI	2	Com Core,AE	(517)353-5147
10/13	PAASS 1999-2000 Program	Mt. Pleasant, MI	2	Com Core,AE	(517)353-5147
10/20	Wood Preserving Workshop	Minneapolis, MN	3	Com Core,2A	(800)421-8661
10/26	Wood Preserving Workshop	Portland, OR	3	Com Core,2A	(800)421-8661



Date	Seminar	Location	Credit	Category	Phone #
10/24-26	Hickson Academy of Preservation	Atlanta, GA	6	Com Core,2A	(404)362-3970
11/2-4	Clarke Ground Applications Training	Roselle, IL	8	Com Core,7F	(800)323-5727
11/4-6	TCI Expo '99-Insect Pests & Control	Indianapolis, IN	1	3B	(800)733-2622
11/4-6	TCI Expo '99-Diseases & Control	Indianapolis,IN	1	3B	(800)733-2622
11/9	MI Grnhse Grwrs Expo-Root Zone Mg	Lansing, MI	2	Priv	(616)383-8830
11/9	MI Grnhse Grwrs Expo-Disease Mgnt	Lansing, MI	2	Priv	(616)383-8830
11/9	MI Grnhse Grwrs Expo-Insectcde Updt	Lansing, MI	1	Priv	(616)383-8830
11/9	MI Grnhse Grwrs Expo-Apply Florel	Lansing, MI	1	Priv	(616)383-8830
11/9	IFC Pestcde Stwrdship Seminar-Day 1	Atlanta, GA	4	Com Core,7A,7C,ST,C	(913)782-7600
11/10	FISA Good Manuf Pract-Day 2	Atlanta, GA	2	Com Core,7A,7C	(913)782-7600
11/10	MI Grnhse Grwrs Expo-Insect Mgnt	Lansing,MI	2	Priv	(616)383-8830
11/10	MI Grnhse Grwrs Expo-Fungicide Updt	Lansing, MI	1	Priv	(616)383-8830
11/11	Wood Preserving Workshop	Little Rock, AR	3	Com Core,2A	(800)421-8661
11/12	OPCA Training School	Cincinnati, OH	4	Com Core,7A,7B	(614)789-9020
11/13	OPCA Training School	Cleveland, OH	4	Com Core,7A,7B	(614)789-9020
11/13	PLCAA Conf-Pesticide Workshop	Baltimore, MD	2	Com Core,3A,3B	(770)977-5222
11/13	PLCAA Conf-Tree & Shrub Workshop	Baltimore, MD	2	Com Core,3B	(770)977-5222
12/13	RUP Core Training Meeting	Lawrence, MI	2	Any	(616)657-7745

Instructions for recertification training seminar attendance and training seminar dates are posted at the MDA website:
<http://www.mda.state.mi.us/industry/semsked.html>

Pesticide Education and PIAP Staff Directory

Pesticide Education Program www.pested.msu.edu

Chris DiFonzo
 Coordinator and Field Crops Entomologist
 517-353-5328
difonzo@pilot.msu.edu

Carolyn Randall
 Editor, Certification Manual Development
 517-353-5147
randallc@msue.msu.edu

Todd Rossman
 Webmaster, Publications
 517-353-4703
rossmant@msu.edu

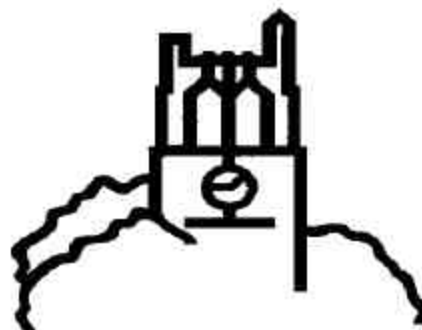
B18 Food Safety & Toxicology Building
 Michigan State University
 East Lansing, MI 48824

Administrative Assistant:
Jennifer Paterson
 Phone: 517-432-2203
 FAX: 517-353-4995

Pesticide Impact and Assessment Program (PIAP)

Larry Olsen
 North Central Region Coordinator
 108 Agriculture Hall
 517-355-0118

Lynnae Jess
 PIAP State Liaison
 Pesticide Education Program
 517-432-1702
jess@msue.msu.edu



Michigan State University



