

Appendix O: U.S. Fish and Wildlife Service Region 3 2014 Pesticide Use Policy

1) This document provides updated Region 3 guidance for the preparation and submission of Pesticide Use Proposals (PUPs), delegates approval authority for some pesticide uses to Project Leaders of National Wildlife Refuges and other Service Programs, and describes measures that provide health protection for Service employees and their families.

2) The policies contained in this memorandum are effective immediately and will remain in effect until terminated or amended by new guidance.

3) All use of chemical pesticides on U.S. Fish and Wildlife Service lands and facilities must conform to Environmental Protection Agency regulations, chemical labels, Material Safety Sheets, and Service and Department of the Interior policies and directives including 517 DM 1, 569 FW 1, and 242 FW 7.

4) These policies and directives are available at:

<http://www.nature.nps.gov/biology/ipm/Documents/DOI517DM1.pdf>

<http://www.fws.gov/policy/569fw1.html>

<http://www.fws.gov/policy/242fw7.html>

5) PUPs are required for all pesticide applications the Service conducts, approves or funds; on or off Service lands.

6) A complete PUP, containing an endangered species review, must be prepared by the station and electronically approved at the appropriate supervisory level before the pesticide can be applied or distributed.

7) All PUPs will be prepared and reported utilizing the on-line system found at:

<https://systems.fws.gov/pups/>

8) A list of chemicals and application methods that can be approved by Project Leaders at the field station level is included in the *2014 Attachment 1 PUP Uses Granted to Field*.

9) To assist Project leaders with endangered species reviews, the Intra-Service Section 7 biological evaluation form is provided as *2014 Attachment 2 R3 Section 7 form*.

10) Point source discharges of biological and chemical pesticide residues into “waters of the United States” may require a National Pollutant Discharge Elimination System (NPDES) permit. The Environmental Protection Agency has delegated the authority to issue these permits to each of the states in Region 3. The states vary considerably in their interpretation of what actions require an NPDES permit. Please check with the state agency issuing these permits for any over water or near water pesticide applications.

11) Any PUP that includes a pesticide or application method that cannot be approved by the Project Leader via the authorities delegated to them in the *2014 Attachment 1 PUP Uses Granted to Field*, must be forwarded to the Regional Office with a detailed explanation in the comments section of the

PUP explaining why the chemicals on the Field Approval list will not meet station needs.

12) National guidelines require Headquarters review of all PUPs for insecticide and fungicide seed treatments unless the Region ensures that all treated seed is incorporated beneath the soil surface and no treated seed remain on the ground. The Headquarters guidance is included as *2014 Attachment 7 Headquarters PUP Guidance*.

13) To comply with Headquarters requirements, all Region 3 PUPs authorizing plantings of insecticide or fungicide treated seed must include Best Management Practices that describe monitoring activities and field stations must complete a Treated Seed Incorporation Monitoring Statement (*2014 Attachment 6 Treated Seed Monitoring Form*) that documents the monitoring activity.

14) Annual Pesticide Use Reports for CY 2014 should be submitted by February 28, 2015 utilizing the PUPs on-line system.

15) Project Leaders and other supervisors are responsible for ensuring that all FWS employees who are applying or overseeing the application of pesticides are properly trained and certified. State Certification is required for many applicators.

16) A decision tree providing R3 guidance on certification requirements is provided as *2014 Attachment 3 Pesticide Certification Tree*. A general summary of these guidelines is that anyone who applies pesticides, or supervises the application of pesticides must have a State Certificate unless all of the following conditions are met:

1. The pesticide is a general purpose pesticide, and
2. The person only makes infrequent application, and
3. The person is supervised by someone who holds a State Certificate, and
4. The person is in compliance with the State's specific certification requirements

17) Some states may require Certification or Licensure of anyone who applies pesticides. The *2014 Attachment 4 State Pesticide Certification Info* provides general information and links to state licensing agencies.

18) Mandatory measures that help protect Service employees and their families are listed in 242 FW 7. These measures include:

- a) Personnel must change clothing they wear during applications before using vehicles or entering office locations.
- b) If personnel wear non-disposable clothing (i.e., uniforms or coveralls) when applying pesticides, they must keep that clothing separate from the clothing they take home, and they must not wash that clothing at home.
- c) Instructions for washing of contaminated clothing are provided in *2014 Attachment 5 Laundering Procedures*.
- d) If suitable laundry equipment is not provided, then personnel who conduct pesticide-related activities must use disposable clothing.

19) Personnel that handle, mix, or apply pesticides (with a Health Hazard Rating of 3 or higher) for 8 or more hours in any week or 16 or more hours in any 30-day period, or use a pesticide in a manner that requires a respirator, will be evaluated for medical examination and monitoring.

- a) All PUPs that are submitted with a Health Hazard Rating of 3 or higher will automatically be forwarded to Rob McGinn, R3 Division of Safety for review and coordination with the Project Leader for appropriate compliance with medical examination and monitoring requirements.
- b) A decision tree providing R3 guidance on medical monitoring is included: *2014 Attachment 8 Medical Surveillance*.

If you have any questions please contact the Regional PUPs coordinator.

Pesticide Uses Granted Field Station Level Approval for CY 2014 in Region 3

1) All pesticide uses on national wildlife refuges, national fish hatcheries, and private lands projects that are conducted, approved, or funded by the Service must have an approved pesticide use proposal (PUP) before pesticide applications can be made. A completed PUP approved at the appropriate supervisory level, consistent with applicable Service and Department of Interior policies (i.e., 517 DM 1, 569 FW 1) and appropriate environmental compliance (e.g., NEPA and ESA), is required prior to the application or distribution of pesticides.

2) In accordance with 569 FW 1, PUPS are created, submitted, reviewed and approved/disapproved via the intranet-based Pesticide Use Proposal System (PUPS) database (<https://systems.fws.gov/pups/>). Pesticide use must be reported annually for approved PUPs. CY 2014 Pesticide Usage Reports must be completed by February 28, 2015.

3) The following Best Management Practices (BMPs) are recommended for all pesticide applications on areas greater than 0.1 acre that are to be approved at the field station level by the field (dis)approver in the PUPS database:

- Ground-based application only (e.g., ground-propelled hydraulic sprayers, backpack sprayers, hand sprayers, wick applicators, etc.).
- During treatment of grass or herbaceous targets, documented review of the label for herbicide activity on trees or other non-target woody plants prior to use under their drip line.
- Do not apply pesticides to slopes >5% if significant rainfall is predicted within 24 hours.
- Do not apply pesticides when wind velocity exceeds 7 mph or when inversion conditions exist.

4) Project leaders are authorized to approve Pesticide Use Proposals for ground applications of one year duration of products containing the active ingredients listed on Page two of this document so long as all label instructions and station BMPs are followed.

5) Project Leaders are also authorized to approve PUPs for:

- a) Pest management solely related to controlling fish and wildlife pathogens and their vectors in hatchery situations or captive breeding programs.
- b) Routine protection of Refuge buildings, structures, and facilities, so long as not involving Restricted Use chemicals.
- c) Use of common household pesticides to curb flies, mosquitoes, ants, cockroaches, hornets, houseplant aphids, clothes moths, and similar situations in offices and residences
- d) Use of livestock protection devices and veterinary techniques applied off-site to animals utilized in a grazing program including but not limited to ear tags and insecticide or insect repellent applications.

6) All other types of applications or pesticide products not authorized to be approved by Project Leaders in Sections 4 or 5 of this policy require the PUP to be submitted, reviewed and approved at the Regional level prior to use. Some products and applications may also require review and approval at the Headquarters level.

Pesticide Uses Granted Field Station Approval for CY 2014*

* Project leaders are authorized to approve Pesticide Use Proposals of one year duration for ground applications of herbicides containing the active ingredients listed below so long as station Best Management Practices and all label conditions are followed. See page three for individual concerns and precautions. If you have questions please contact the Regional Pesticide Use Coordinator.

Caution! Please ensure that all applicators read and comply with label instructions. Disposable clothing must be used when applying pesticides unless suitable laundry arrangements have been made. Use of pesticides with a Health Hazard rating of 3 or higher may require medical monitoring.

#	Active Ingredient	Common Registered Trade Names	Human Health Hazard #	Weed Spectrum		Crop		Comments/Application timing for non-GMO crops
				Broadleaf	Grass	Corn	Soybeans	
1	2,4-D (amine)	Weedar 64, 2,4-D Amine 4, and many others	3	x		x		See individual labels.
2	2,4-D (ester)	2,4-D LV4, Weed One LV 6, and many others	2	x		x		See individual labels.
3	Aminopyralid	Milestone	1	x				Non-crop areas.
4	Clethodim	Select 2EC, Arrow 2 EC, Shadow	2		x		x	POST ³
5	Clopyralid	Transline, Stinger	2	x		x		See individual labels.
6	Dicamba	Banvel, Clarity	2	x		x		PRE ² , POST ³
7	Flumiclorac-pentyl ester	Resource	2	x		x	x	POST ³
8	Glufosinate ammonium	Finale, Rely, Ignite, Liberty	2	See individual labels.				Used on "Liberty Link" (GMO) crops as well as for other applications.
9	Glyphosate	Roundup, Rodeo, Accord	1	x	x			Use surfactant free products or products labeled for aquatic use.
10	Imazethapyr	Pursuit	1, 2, or 3. Varies with formulation	x	x	x*	x	*Clearfield corn only (non GMO) / PPI ¹ , PRE ² , POST ³
11	Imidazolinones (other): including Imazapic, Imazaquin, Imazethapyr, Imazamox & Imazamethabenz	Plateau, Habitat, Stalker, Assert		See individual labels.				See individual labels.
12	Nicosulfuron	Steadfast, Steadfast Q, Accent	1	x	x	x		POST ³
13	Rimsulfuron	Steadfast, Steadfast Q, Resolve	1	x	x	x		PRE ² , POST ³
14	Sethoxydim	Poast, Poast Plus	2		x		x	POST ³
15	Triclopyr (amine)	Garlon 3A	3	x				Non-crop areas.
16	Triclopyr (ester)	Garlon 4	2	x				Non-crop areas.

¹PPI = pre-plant incorporated: Soil applied prior to planting and mechanically incorporated into the soil. The objective for incorporation is to prevent dissipation through photodecomposition and/or volatility.

²PRE = pre-emergent: These herbicides typically do not control established weeds.

³POST = post-emergent: Applied after the crop has emerged.

#	Active Ingredient	Common Registered Trade Names	Concerns	Precautions
1	2,4-D (amine)	Weedar 64, 2,4-D Amine 4, and many others	High potential for vapor drift. Highly mobile in water. Moderately toxic to fish and aquatic invertebrates.	Do not apply directly to water. Do not apply to sites where groundwater is less than 10 feet from the surface. Be very aware of current and predicted winds and stay well away from forbes, soybeans & other desirable broadleaf species.
2	2,4-D (ester)	2,4-D LV4, Weed One LV 6, and many others	High potential for vapor drift. Highly toxic to fish and aquatic invertebrates.	Do not apply directly to water. Do not apply to sites where groundwater is less than 10 feet from the surface. Be very aware of current and predicted winds and stay well away from forbes, soybeans & other desirable broadleaf species.
3	Aminopyralid	Milestone	Highly mobile in water. Hay or manure from animals grazing on treated areas may cause injury to sensitive plants.	Maintain adequate buffer around water. Do not treat areas that will be hayed or grazed.
4	Clethodim	Select 2EC, Arrow 2 EC, Shadow	Highly persistent in water.	Do not apply directly to water.
5	Clopyralid	Transline, Stinger	Highly mobile in water.	Do not apply directly to water.
6	Dicamba	Banvel, Clarity	Highly mobile in water. High potential for vapor drift.	Maintain adequate buffer around water. Do not apply to gravel, sand, or sandy loam soils. Do not apply to sites where groundwater is less than 10 feet from the surface. Be very aware of current and predicted winds and stay well away from forbes, soybeans & other desirable broadleaf species.
7	Flumiclorac pentyl ester	Resource	Slightly to moderately toxic to fish and invertebrates. Practically non-toxic to bees.	Do not apply this product within 70 feet of streams, wetlands, marshes, ponds, lakes and reservoirs.
8	Glufosinate ammonium	Finale, Rely, Ignite, Liberty	"Persistent and mobile" in water.	Do not apply directly to water.
9	Glyphosate	Roundup, Rodeo, Accord	An unlisted ingredient (POEA) present in some formulations and commonly added surfactants appears to be quite harmful to aquatic invertebrate and amphibian populations.	Use surfactant free products or products labeled for aquatic use such as Accord, Roundup Custom, Rodeo, Aqua-Master, Aqua-Neat, Eagre, Glypro, Glyphos-Aquatic or equivalent products. If surfactants are added use those that are labeled no more than slightly toxic (LC50>10mg/L) to fish and aquatic invertebrates. Some surfactants to avoid include: Activate Plus, Induce, Timberland90, Aqua King, Aqua King Plus, Optima, Entry II, No Foam A, R-11, Orthox-77, X-77 Spreader, and Cide-Kick.
10	Imazethapyr	Pursuit	Slow degradation in some soils. Some formulations highly mobile in water.	Maintain adequate buffer around water. Do not apply to gravel, sand, or sandy loam soils.
11	Imidazolinones (other): including Imazapic, Imazaquin, Imazethapyr, Imazamox & Imazamethabenz	Plateau, Habitat, Stalker, Assert	Slow degradation in some soils. Some formulations highly mobile in water.	Maintain adequate buffer around water. Do not apply to gravel, sand, or sandy loam soils.
12	Nicosulfuron	Steadfast; Steadfast Q	Causes moderate eye irritation. Harmful if absorbed through skin.	Do not apply directly to water.
13	Rimsulfuron	Resolve	Causes moderate eye irritation. Harmful if absorbed through skin.	Do not apply directly to water.
14	Sethoxydim	Poast, Poast Plus	Toxic to aquatic organisms.	Do not apply directly to water.
15	Triclopyr (amine)	Garlon 3A	Highly mobile in water.	Be aware of potential for groundwater contamination in porous soils.
16	Triclopyr (ester)	Garlon 4	Highly mobile in water. The major metabolite (TCP) is toxic to fish.	Do not apply directly to water.

Intra-Service Section 7 Biological Evaluation Form Region 3

Originating Person: _____ Date Submitted: _____

Telephone Number: _____

For assistance with section 7 reviews, go to Region 3's Section 7 Technical Assistance website:
<http://www.fws.gov/midwest/endangered/section7/s7process/>

- I. Service Program and Geographic Area or Station Name:**
- II. Location:** Location of the project including County, State and TSR (township, section & range):
- III. Species/Critical Habitat:** List federally-listed, proposed, and candidate species or designated or proposed critical habitat that may occur within the action area:

IV. Project Description: Describe the proposed project or action, including all conservation elements. If referencing other documents, prepare an executive summary. Include map and photos of site, if possible. (Attach additional pages as needed):

- V. Determination of Effects:**
- A. Description of Effects:** Describe how the action(s) will affect the species and critical habitats listed in item III, including how Part IV conservation elements benefit or avoid adverse effects. Your rationale for the Section 7 determinations made below (VB.) should be fully described here.

B. Determination: Determine the anticipated effects of the proposed project on species and critical habitats listed in item III. Check all applicable boxes and list the species (or attach a list) associated with each determination. **For assistance with making appropriate Section 7 determinations, go to Region 3's Section 7 Technical Assistance website:**

<http://www.fws.gov/midwest/angered/section7/s7process/>

Determination

No Effect: This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) individuals of listed/proposed/candidate species or designated/proposed critical habitat of such species. No concurrence from ESFO required.

May Affect but Not Likely to Adversely Affect: This determination is appropriate when the proposed project is likely to cause insignificant, discountable, or wholly beneficial effects to individuals and designated critical habitat. Concurrence from ESFO required.

May Affect and Likely to Adversely Affect: This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species or designated critical habitat of such species. Concurrence from ESFO required.

Not Likely to Jeopardize candidate or proposed species/critical habitat: This determination is appropriate when the proposed project is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. Concurrence from ESFO required.

Likely to Jeopardize candidate or proposed species/critical habitat: This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. Concurrence from ESFO required.

Signature _____
[Supervisor at originating station]

Date _____

Reviewing Ecological Services Office Evaluation (check all that apply):

A. **Concurrence** _____

Nonconcurrence _____

Explanation for nonconcurrence:

B. Formal consultation required _____

List species or critical habitat unit

C. Conference required _____

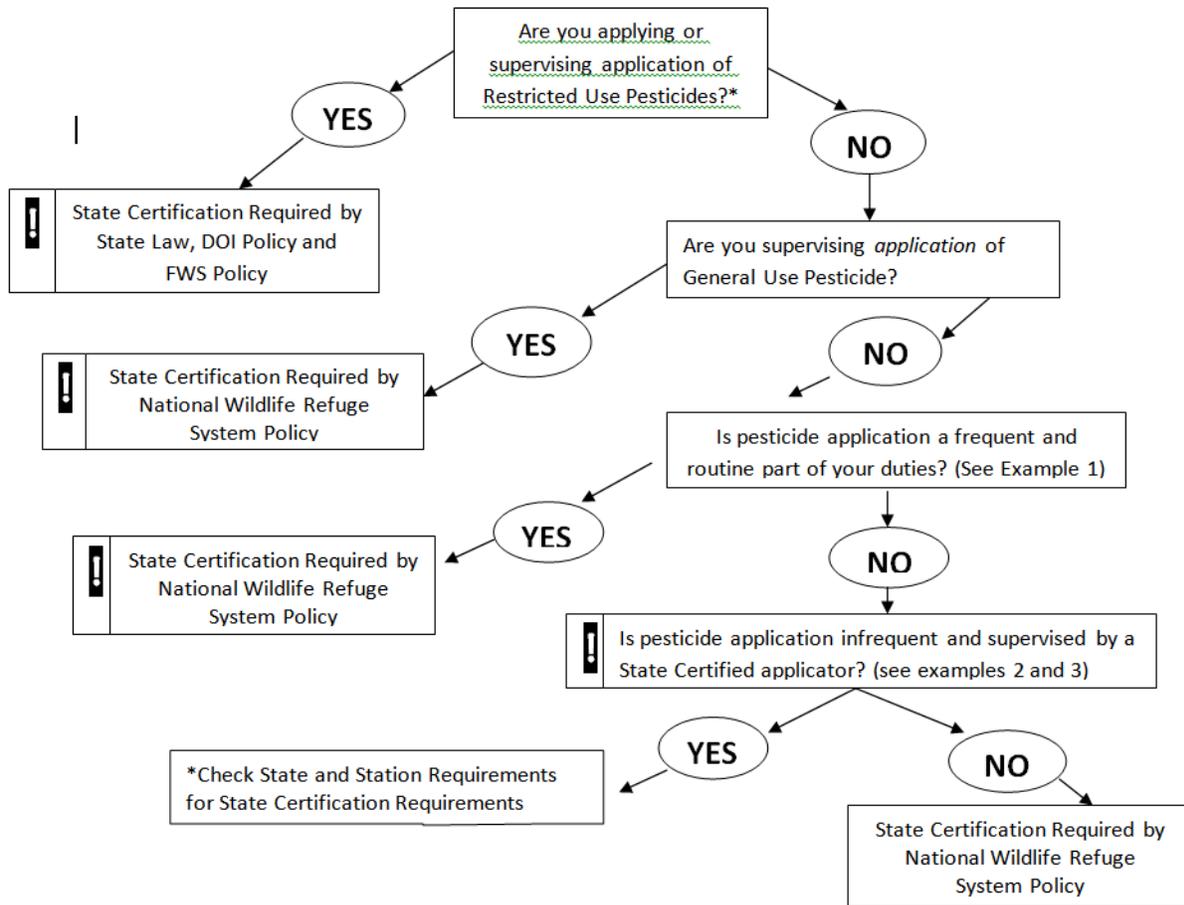
List species or critical habitat unit

Name of Reviewing ES Office _____

Signature _____

Date _____

Certification decision tree for Fish and Wildlife Service employees and volunteers who apply pesticides.



*As identified on product label. EPA classifies pesticides into two categories: General use pesticides and restricted use pesticides. Restricted use pesticides may be applied only by or under the direct supervision of trained and certified applicators.

Example 1 – Frequent or Routine: A Refuge Operations Specialist spends a minimum 8 hours each week during the field season, mixing, loading and applying herbicides using backpack spray, tractor/ATV mounted boom spray and other methods. The ROS is exposed weekly to a variety of herbicides. In addition to applying herbicides, the ROS is responsible for supervision of other employees and volunteers who occasionally are tasked with application of herbicides. This supervision includes briefing employees and volunteers on safety and the responsible use of herbicides.

Example 2 – Infrequent: A Biologist carries a spray bottle of Roundup® with them during a weekly survey of the refuge boundary for invasive plants. The Biologist has been previously briefed by an ROS who is a State Certified Pesticide Applicator on the safe and appropriate uses of Roundup®. If the Biologist encounters an invasive plant, she sprays it with Roundup®.

Example 3 – Infrequent: Once a month a group of volunteers under the supervision of a Biologist who is a State Certified Pesticide Applicator are briefed on the appropriate use of Roundup® and are provided the appropriate personal protective equipment to apply Roundup®. The volunteers are directed to a portion of the refuge, and under the supervision of the Biologist they spend the day cutting and stump treating buckthorn using handheld spray bottles.

R3 STATE PESTICIDE APPLICATOR CERTIFICATION INFORMATION

Service and Regional policy require State Pesticide Applicator certification for employees or volunteers who frequently apply pesticides or who supervise the application of pesticides by others. State certification regulations vary considerably however. In some states, all applicators may require certification. In others, certification may not be required by state regulations or the regulations regarding refuge applications may be somewhat vague.

To best address these variations and to potentially improve the safety and effectiveness of their invasive species program, Project Leaders, in consultation with their Area Supervisor, are authorized to require State certification for all applicators at their field station(s).

A general guide to the individual state certifications that comprise Region 3 and a few appropriate links are provided below. Please be sure to consult current state regulations for specific information.

1. ILLINOIS

Specific state certification requirement for all applicators: YES

- *“Persons applying general-use or restricted-use pesticides in the course of employment must have a commercial applicator's license.”*

WEBSITE: <http://www.agr.state.il.us/Environment/Pesticide/training/privappl.html>

2. INDIANA

Specific state certification requirement for all applicators: NO

- *“A person who is not a licensed public applicator may use a pesticide if the person is under the direct supervision of a licensed public applicator.”*

WEBSITE: <http://www.in.gov/legislative/ic/code/title15/ar16/ch5.html>

3. IOWA

Specific state certification requirement for all applicators: YES

- *“A license is required for any state or county agency, municipal corporation, or any other governmental entity which during regular operating procedures performs or supervises pesticide applications (either non-restricted or restricted pesticides).”*

WEBSITE: http://www.iowaagriculture.gov/Pesticide/forms/001_A_REV.pdf

4. MICHIGAN

Specific state certification requirement for all applicators: YES

- Requirement for individuals *“to be either a certified pesticide applicator or registered applicator to apply a pesticide for a commercial purpose or in the course of his or her employment.”*

WEBSITE: http://www.michigan.gov/mda/0,1607,7-125-1569_16988_35289-11999--,00.html

5. MINNESOTA

Specific state certification requirement for all applicators: No

Misc. Information:

- Two types offered:
- *“Commercial pesticide applicator licenses are for pesticide applicators who apply any pesticide (including herbicides) “for hire”. For hire means you charge or invoice for the service.”*
- *“Noncommercial licenses are for all pesticide applicators that apply restricted use pesticides (RUP) as part of their job on property owned or contracted by their employer.”*

WEBSITE: <http://www.mda.state.mn.us/licensing/licensetypes/pesticideapplicator/licreqs.aspx>

6. MISSOURI

Specific state certification requirement for all applicators: Perhaps

Misc. Information:

- *“General-use pesticides may be used by anyone, so long as the pesticide is used only on lands owned or rented by that person or that person's employer. Pesticides that are classified as general use are not expected to cause adverse effects to humans or the environment if they are used in accordance with label directions.”*
- Six different types of licenses

WEBSITES: <http://extension.missouri.edu/publications/DisplayPub.aspx?P=G855>

<http://mda.mo.gov/plants/pesticides/licensing.php>

7. OHIO

Specific state certification requirement for all applicators: No

Misc. Information:

- *“Ohio law allows nonlicensed users to operate if they are under the direct supervision of a licensed applicator. The licensed applicator must work for the same business or agency and have a supervisory role. However, the nonlicensed applicator must be a trained serviceperson.”*

WEBSITE: <http://pested.osu.edu/commfaq.html>

8. WISCONSIN

Specific state certification requirement for all applicators: Ground: No

Aquatic: Yes

Misc. Information:

- *“You must be certified if you apply or direct the use of restricted-use pesticides, pesticides on a for-hire basis, pesticides in public schools or on school grounds, or pesticides in aquatic environments”*
- Two types offered, Private and Commercial Applicator.

WEBSITE: <http://ipcm.wisc.edu/pat/Certification/tabid/94/Default.aspx>

Laundering Procedures for Pesticide Contaminated Clothing

1. **Label/MSDS** - Always be aware of the pesticide that was used and ALWAYS read the label prior to laundering.
2. **Pesticide-Soiled Clothing** shall be removed outdoors and away from traffic paths to prevent the transfer of chemicals on shoes.
3. **Heavily contaminated** pesticide-soiled clothing shall be disposed of and not washed.
4. If a **granular pesticide** was used, all pockets and cuffs should be emptied. Remove as much of the pesticide as possible from garments at this time to lessen the chance of contaminating the washing machine.
5. **Storage** - Store Pesticide Clothing in a sealed labeled container and not with any other materials to be washed.
6. **Gloves** - Unlined rubber gloves shall always be worn when handling and laundering pesticide-soiled clothing. Carefully wash the gloves in hot water after each use and store and use them ONLY for this purpose.
7. **Pre-rinsing** is a very important step as it helps to remove pesticide residue. Pre-rinsing can be done by:
 - a. Presoaking in a suitable container before washing;
 - b. Pre-rinsing with agitation in an automatic washing machine;
 - c. Spraying or hosing garment(s) outdoors.
8. **Load Size** - Wash **small loads** of pesticide contaminated clothing with the washer setting on **large load/high level**. The more water used the better. Large amounts of water aid in thoroughly flushing pesticides from fabrics. Using a full washer also decreases the possibility that a pesticide would be redeposited back on the fabric.
9. **Use hot water**. Washing in hot water removes more pesticides from clothing. Avoid cold-water washing! Although cold-water washing might save energy, research has shown that cold water is relatively ineffective in removing pesticides from clothing.
10. **Laundry Detergent** – Most Laundry detergents are similarly effective in removing pesticides from fabric in the pesticide is not oil based. Oil based (emulsifiable concentrate) pesticides should use a Heavy-Duty liquid detergent.
11. **Washer Cleaning** – Small amounts of pesticides residue will remain in the washing machine after the cycle is over, so it's important to rinse the washing machine setting the cycle used for laundering the soiled clothing and run the machine an extra cycle.
12. **Line Drying** – Line dry the clothes to keep from contaminating the dryer. Sunlight and air movement will aid in decomposing or breaking down any pesticide residue not removed during laundering.

13. **Other equipment** – Wash hard hat, goggles, respirator, gloves and neoprene boots in hot, soapy water after each use. Store the clean articles away from where pesticides are stored.

Appendix A
Region 3 Treated Seed
Incorporation Monitoring Statement

Refuge or WMD:

Name of FWS representative inspecting the field(s):

Title of FWS representative inspecting the field(s):

Description and acreage of area to be planted with treated seed:

Purpose of the planting:

Trade and Active Ingredient Name(s) of seed treatment:

Pesticide Use Proposal number(s):

Date(s) of planting:

Date(s) of inspections:

Date and time of final comprehensive inspection:

I certify: (check all that apply)

a) ___ refuge staff conducted random field spot checks when the treated seeds were being planted

b) ___ all crop seeds were planted in-furrow or picked-up and removed or replanted underground immediately.

c) ___ a final comprehensive inspection was made after planting was completed and no uncovered treated seeds remain on Refuge/WMD lands.

Field Inspector Signature:

Date:

Project Leader Signature:

Date:

Project Leader printed name:

U.S. Fish and Wildlife
Service
Headquarters Guidance for Pesticide Use
Proposals

Pesticides are one tool to manage pests on U.S. Fish and Wildlife Service (Service) facilities. Pesticides may also be used by Service staff when working cooperatively to restore habitat off- refuge. Some pesticides can potentially cause adverse effects to non-target resources. The Service uses Pesticide Use Proposals (PUPs) to document pesticide use and to help ensure we select and use pesticides with the least risk to non-target resources while still achieving pest management objectives. The Service Director has delegated approval for most pesticide use to the Regions. For those pesticide uses that pose the greatest risk of causing adverse effects to non-target resources, PUPs are submitted to the Service's National Integrated Pest Management (IPM) Coordinator for review/(dis)approval. For more information, consult the Service's Integrated Pest Management Policy, 569 FW 1 and the Departmental IPM Policy 517 DM 1.

Restricted Use Pesticides The U.S. Environmental Protection Agency (EPA) classifies pesticides into two categories: restricted use pesticides (RUP) and general use pesticides. A RUP is a pesticide that is available for purchase and use only by certified pesticide applicators or persons under their direct supervision. The EPA classifies a pesticide as a RUP when it has determined that the pesticide may generally cause unreasonable adverse effects on the environment, including injury to the applicator, even when used in accordance with the label. RUPs require Headquarters review/(dis)approval, except where the National IPM Coordinator has worked with Regional IPM Coordinator and adequate documentation is provided to ensure that site-specific mitigation for potential adverse effects to non-target resources is implemented at the time of application.

Specific pesticide use cases:

Chlorophacinone and Diphacinone: When used in full accordance with the label(s) for the following uses:

- endangered species protection,
- near facilities, new tree plantings, and
- on lawns using bait bars or a trigger-equipped bait applicator that places the
- pesticide in the mammal's main tunnel,

may be approved at the Regional level if IPM control methods including but not limited to flooding, exclusion devices, and barn owl housing, are considered as alternatives and implemented, if appropriate. Applicators must immediately seal probe holes used to place bait with sod, rock, or other material to exclude entry by non-target animals.

Rotenone used as a pesticide in closed loop, impermeable layer lined, artificial

systems in full accordance with all registration label requirements may be approved at the Field station level.

Zinc Phosphide placed within rodent burrows using drip-proof methods (1) when there is a documented human safety or human health concern and (2) staff cannot safely or feasibly achieve rodent control with non-pesticide methods and may be approved at the Regional level.

Other RUPs that require National IPM Coordinator review/(dis)approval:

Any proposed uses (includes all ground and aerial) of **acetochlor, atrazine, bentazon, bromacil, diuron, EPTC, metolachlor, metribuzin, norflurazon, prometon, simazine, and trifluralin** due to their high leaching potentials, toxicological profiles, and/or frequent detections in surface or groundwater;

Tank Mixes: All tank mixes of two or more restricted use insecticides, nematicides, or miticides or any other non-herbicide combinations.

General Use Pesticides

EPA classifies a pesticide, or the particular use or uses of the pesticide, as a General Use Pesticide, if the pesticide generally will not cause unreasonable adverse effects on the environment. In many cases, EPA does not require a certified applicator to purchase or apply a General Use Pesticide (agencies' policies and individual states may differ on this). The Service encourages Service staff to become Certified Pesticide Applicators. All who apply pesticides on Service lands must have training and certification as required by federal and state laws.

General Use Pesticides that require National IPM Coordinator Review:

Mosquito Management. PUPs for mosquito management with the following proposed uses must receive National IPM Coordinator, or designee, review and (dis)approval:

- 1). Larvicide temephos (Abate®)
- 2) Adulticides (malathion, naled, all pyrethrins, and pyrethroids)
- 3) Applications of surface films (e.g., Agnique® MMF) to areas that are 1,000 square meters (0.1 ha) or larger.

General Use Pesticides “exempt” from National IPM Coordinator Review/(Dis)Approval:

Ground and Aerial Applications. If Regions have implemented documented, quantitative IPM approaches including no-spray buffers around sensitive habitats and non-target organisms, then ground and aerial applications of general use pesticides do not require National IPM Coordinator review/(dis)approval.

Tank Mixes: If label requirements are followed, including and appropriate compatibility testing, tank mixes of General Use Pesticides do not require National IPM Coordinator review/(dis)approval.

General Use Aquatic Herbicides. All general use aquatic herbicides with a LC₅₀ greater than 50 mg/L toxicity to aquatic life are exempt from National IPM Coordinator review/(dis)approval. For example, some herbicides that are harmful to aquatic life at labeled application rates, like 2, 4-D ester formulations, require Headquarters review. *Warning:* Aquatic pesticides, particularly herbicides, have the potential to create low dissolved oxygen conditions, which can cause fish kills.

Mosquito Management. Larvicides containing *Bacillus thuringiensis israelensis* (Bti), *Bacillus sphaericus* (e.g., VectoLex®), and methoprene (e.g., Altosid®) are exempt from National IPM Coordinator review/(dis)approval

General:

Pesticides with a High Leaching or Runoff Potential. All pesticides with a high potential to leach to groundwater or runoff to surface waters or which have been frequently found in surface or groundwater (listed in Table 1 in this document) require Headquarters review/(dis)approval if the proposed use is in any one of the following conditions:

- leachable soils (less than 2% organic matter)
- the depth to water table 10 feet or less
- the underlying bedrock has high infiltration (e.g., limestone bedrock).

Elevated Pesticide Concentrations in Surface Waters. If a refuge has drinking or surface waters with reported pesticides at possible risk levels to humans, aquatic plants, animals or other wildlife future use of these pesticides will require Headquarters review. Refuges can generally learn of elevated pesticide concentrations in their waters through Clean Water Act section 303(d) lists, U.S. Geological Survey reports, and literature searches conducted by the National Conservation Training Center (NCTC) or searching using the names of water, their state and/or county, plus "pesticide OR herbicide."

High Probability of Adverse Impacts to Non-Target Organisms. Pesticides (see Table 1) with a high probability of adversely impacting non-target organisms based on toxicity, persistence, exposure potential, or site-specific conditions of the proposed applications require Headquarters review/(dis)approval, unless regions document an IPM approach and impose site-specific mitigation

Petroleum-Based Pesticides and Solvents. All petroleum-based pesticides applied to water or wetlands and all pesticides with benzene, ethyl benzene, toluene, xylene, or polycyclic aromatic hydrocarbons (e.g., naphthalene) listed as active, inert, or other ingredients require Headquarters review/(dis)approval.

Insecticide and Fungicide Seed Treatments. Insecticide and fungicide seed treatments require Headquarters review/(dis)approval unless the Region ensures that all treated seed is incorporated beneath the soil surface and no treated seeds remain on the ground.

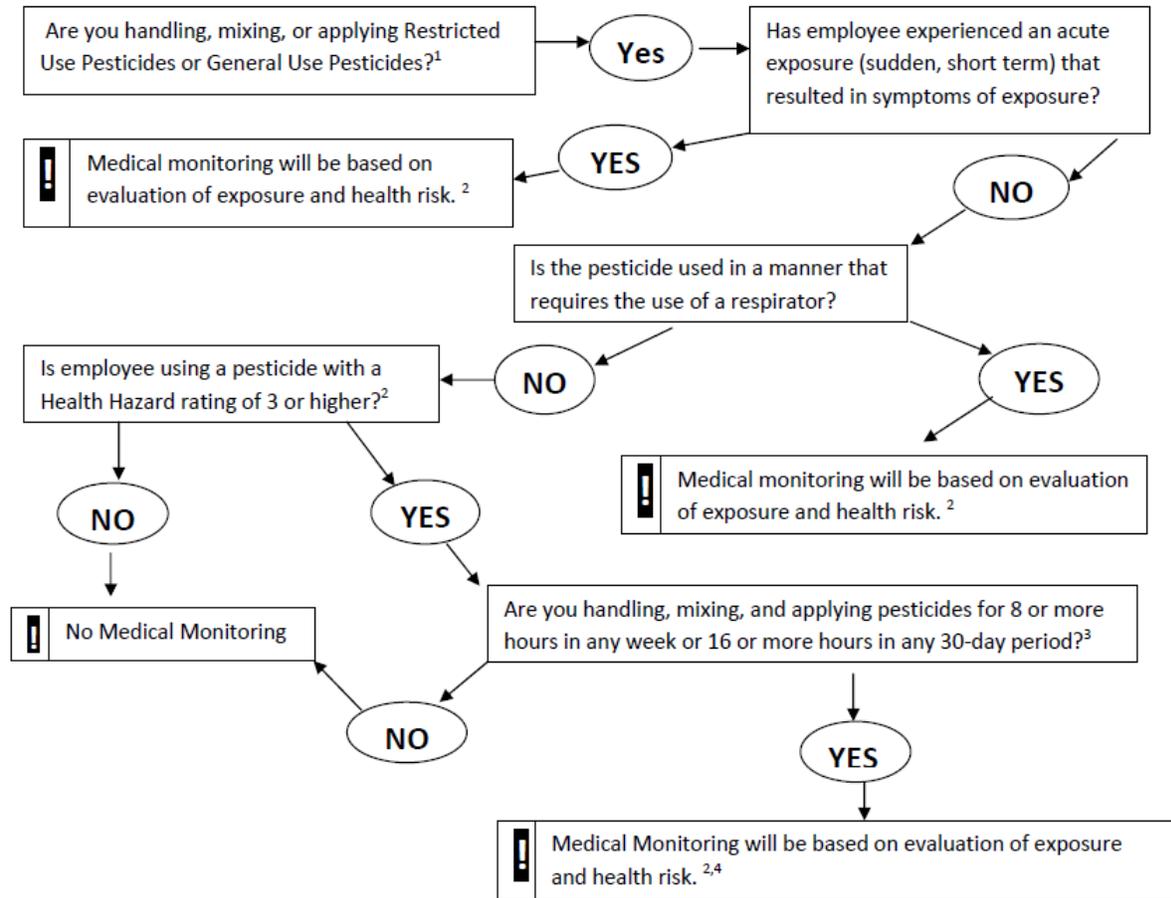
- It is a violation of the Federal Insecticide, Fungicide, and Rodenticide Act to use a product in a manner inconsistent with its labeling. The conditions in this document do not substitute for pesticide registration label instructions or state specific regulations.
- Regions always have the option to submit any PUP to Headquarters review/(dis)approval. Regions can confer with the Headquarters on any PUP under development, regardless of whether that PUP requires Headquarters review/(dis)approval.
- Any mention of specific products does not constitute endorsement by the U.S. Fish and Wildlife Service.
- Factors to consider when analyzing any pesticide use proposal are the persistence and toxicity of the product and the potential for exposure to non-target organisms.

TABLE 1*. HERBICIDES, FUNGICIDES, AND GROWTH REGULATORS OFTEN FOUND IN SURFACE AND/OR GROUND WATER AND/OR HIGHLY LIKELY TO LEACH AND PERSIST UNDER SOME CIRCUMSTANCES OR CAUSE NON-TARGET IMPACTS.

2,4-D	Daminozide	Molinate
Acetochlor	Dicamba	Napropamide
Acifluorfen	Dichlorprop, 2,4 -DP	Napthalam
Alachlor	Diclofop	Norflurazon
Ametryn	Diethatyl-ethyl	Pebulate
Amitrole	Diphenamide	Pendimethalin
Asulam	Diuron	Picloram
Atrazine	EPTC	Prometon
Bensulide	Ethofumesate	Prometryn
Bentazon	Hexazinone	Propachlor
Brodifacoum	Imazapyr	Propazine
Bromacil	Imazaquin	Pyrazon
Butylate	Imazethapyr	Siduron
Chloramben	Linuron	Simazine
Chlorpropham	Maleic Hydrazide	Sulfometuron
Chlorsulfuron	MCPA	Tebuthiuron
Clomazone	MCPB	Terbacil
Clopyralid	Metalaxyl or Mefenoxam	Thibencarb
Clothianidin	Metolachlor	Triclopyr
Cyanazine	Metsulfuron	Trifluralin
Cycloate	Metribuzin	Vernolate

* Table 1 should guide Regions to develop site-specific application restrictions as needed to protect against potential ground and surface water contamination or non-target impacts.

Medical Surveillance of Fish and Wildlife Service pesticide applicators and volunteers decision tree



1. Pesticides with a health hazard rating of 1 or 2 have no restrictions other than what the manufacture requires on the label/MSDS. Employees are not placed in a medical monitoring program. They may be entered into program if they experience an acute exposure that results in symptoms.

2. The Regional Safety Manager, Project Leader/Supervisor/Manager, and occupational health professional(s) shall make decision about medical monitoring based on pesticide specific health risks, how pesticide is being applied, potential route of entry, potential risks from other pesticide-related activities and individuals' health and fitness.

3. Frequent Pesticide Use means when a person applying pesticides handles, mixes, or applies pesticide, with a Health Hazard rating of 3 or higher, for 8 hours in any week or 16 or more hours in any 30-day period. We consider any less frequent pesticide use to be infrequent use and employees are not placed in a medical monitoring program. They may be entered into program if they results in experience an acute exposure that symptoms.

4. Employees that are not recommended for medical monitoring can request a review of the decision. This request must be made in a written or e-mail format and sent to their Supervisor with a copy to the Regional Safety Office. Requests should include a brief explanation as to why the employee feels medical monitoring is necessary.