

2017

## 2017 Pesticide Safety - Safety Update

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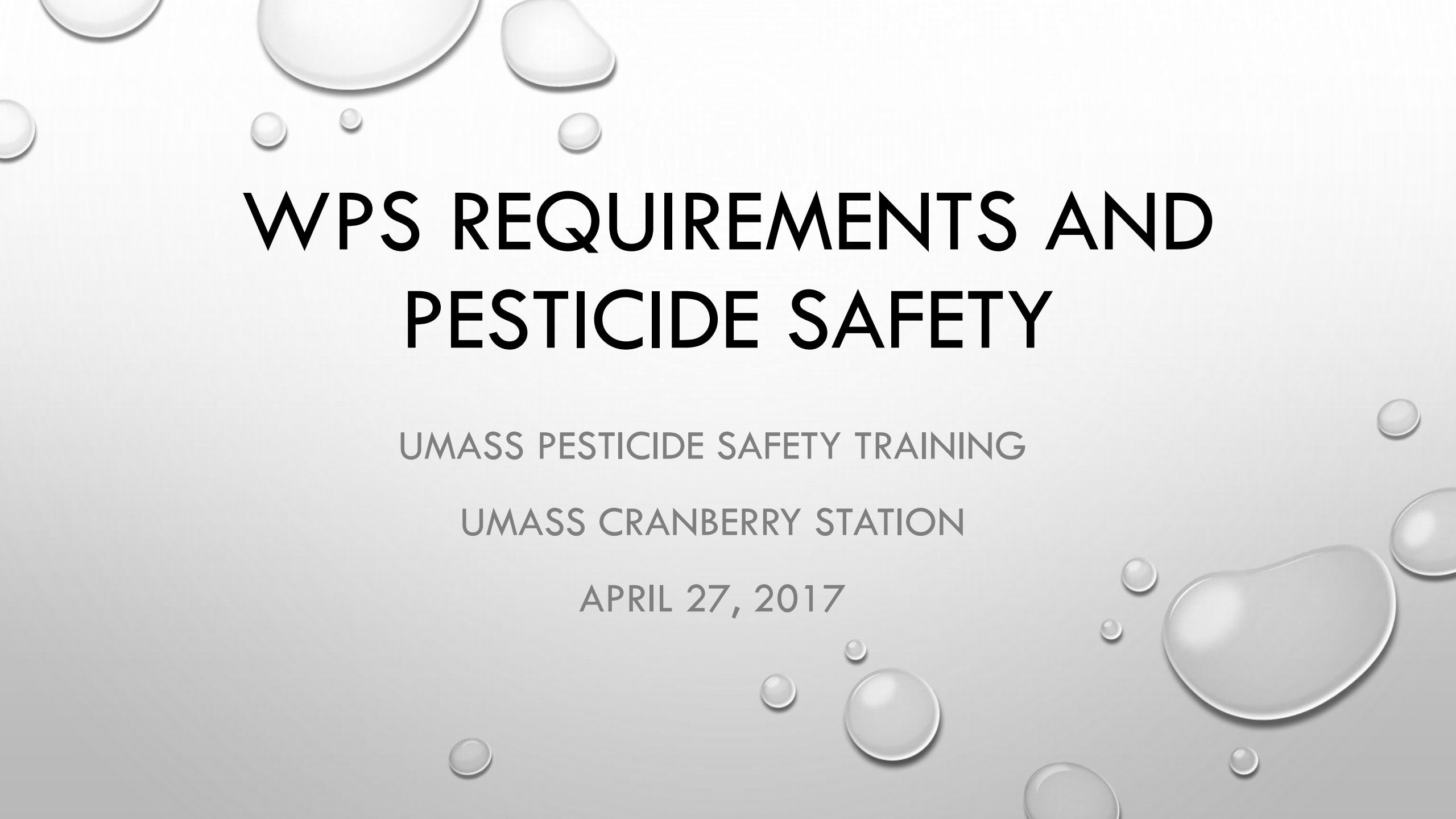
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The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# WPS REQUIREMENTS AND PESTICIDE SAFETY

UMASS PESTICIDE SAFETY TRAINING

UMASS CRANBERRY STATION

APRIL 27, 2017

# NEW MDAR RULES

- MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES
  - PESTICIDE PROGRAM
- REQUIRES SIGN-IN WITH ID FOR CREDITS
- REQUIRED WARNING TO PAY ATTENTION (NEXT SLIDE)
- EACH CREDIT IS 50 CONTINUOUS MINUTES OF INFORMATION PERTINENT TO PESTICIDES
  - FOR EXAMPLE...REGULATIONS, IPM, LABELS, APPLICATION, RESISTANCE
- CAN'T SIGN PESTICIDE CREDITS TIL THE END OF THE MEETING
  - MUST BE COMPLETED WITH THE APPLICATORS INFORMATION (NAME AND LICENSE #)
  - KEEP ORIGINAL CERTIFICATE FOR PROOF IF YOU ARE AUDITED
- TRAINER (UMASS) MUST MUST PROVIDE SIGN-IN WITHIN 7 DAYS TO MDAR

Credits must be issued in a secure manner with attendees adhering to requirements of MDAR

## REQUIRED WARNING!!

PESTICIDE APPLICATORS RECEIVING CREDIT MUST SIT AND BE PRESENT THROUGH THE ENTIRETY OF THE TRAINING IN ORDER TO OBTAIN THE CREDITS THAT ARE BEING OFFERED.

THE APPLICATOR MAY NOT PARTAKE IN ANY ACTIVITIES THAT WOULD DISTRACT OR OTHERWISE DRAW ATTENTION AWAY FROM THE TRAINING.

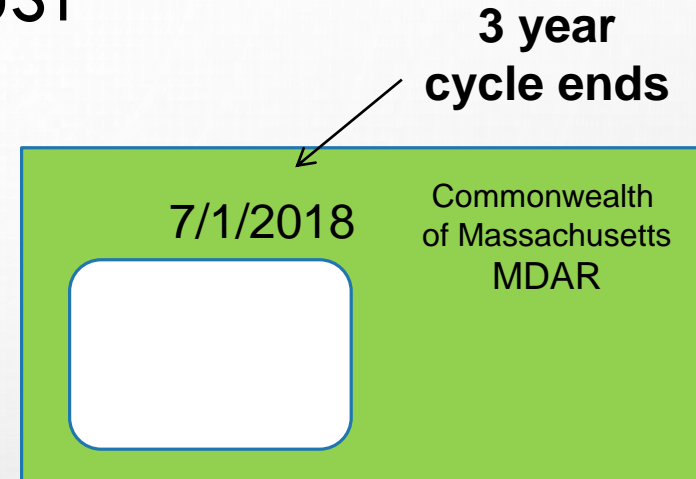
THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- TAKING OR MAKING PHONE CALLS
- TEXTING OR PLAYING ON PHONE
- TALKING OR DISTRACTING OTHERS
- BEING DISRUPTIVE
- COMING IN LATE
- LEAVING EARLY
- SLEEPING

# PRIVATE CERTIFICATION **AUDITS** ON THE INCREASE

# CRANBERRIES CAT. 30

- SENT OUT ALREADY • RETURN BY AUGUST
- OVER 1000 AUDITS, 33 IN CRANBERRY
- 3 YEAR CYCLE
  - 7/1/2014 - 6/30/2017
  - 7/1/2015 - 6/30/2018
- NEED 12 CREDITS IN THAT TIME
- MUST PRODUCE ORIGINAL DOCUMENTS



100% of the new certifications get audits, then <25% going back in time. (Heavily weighed to recent certifications)

IN CRANBERRY - 10% new, 90% over 15 years old

# GOT AUDITED? NEED MORE CREDITS?

- 2017 JUNE 20 PESTICIDE RECERTIFICATION TRAINING WORKSHOPS IN MARLBOROUGH, MA
- TUESDAY, JUNE 20, 2017 7:45 AM - 12:45 PM (EASTERN TIME)
- **BEST WESTERN ROYAL PLAZA HOTEL**  
181 BOSTON POST ROAD WEST  
MARLBOROUGH, MASSACHUSETTS 01752
- UMASS/AMHERST PESTICIDE PROGRAM. PHONE: 413-545-1044
- **DESCRIPTION** TWO WORKSHOPS ON THIS DATE, EACH WORKSHOP IS 2 CONTACT HOURS
  - MA PESTICIDE LAWS & REGULATIONS (8:00AM FOR ALL CATEGORIES OF LICENSES)
  - SPECIAL TOPICS FOR PESTICIDE APPLICATORS (10:30AM FOR ALL CATEGORIES OF LICENSES)

# MDAR PESTICIDE DISPOSAL PROGRAM

- [WWW.MASS.GOV/AGR](http://WWW.MASS.GOV/AGR). REGISTER IN ADVANCE BY MAY 15 DROP OFF IN SUTTON
- THE MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES (MDAR) OPENED REGISTRATION TO PESTICIDE APPLICATORS FOR THE OPPORTUNITY TO DISPOSE OF UNWANTED AND/OR UNREGISTERED PESTICIDES AT NO COST. MDAR HAD RECEIVED A GRANT AND PLACED THIS PROGRAM ON A FIRST COME FIRST SERVE BASIS. DUE TO THE HIGH DEMAND OF THE PROGRAM MDAR HAS REACHED THE FUNDING CAPACITY BASED ON FUNDING. UNFORTUNATELY YOUR REGISTRATION DID NOT REACH US IN TIME TO BE ABLE TO PARTICIPATE IN THIS PROGRAM. MDAR WILL CONTINUE TO SEEK OUT OPPORTUNITIES TO FUND SUCH EVENTS AS IT APPEARS THERE IS CONTINUOUS NEED FOR SUCH.

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# BEWARE HANDLER RESTRICTIONS

- **OCEANSPRAY (EXPORT PROCESSED)**
  - **RIMON, PRINCEP, KERB, OR QUINSTAR**
    - NO USE ALLOWED
  - **LORSBAN, ORTHENE**
    - NO USE AFTER 6/22
  - **BRAVO, EVITO**
    - NO USE AFTER 7/25
  - **SEVIN, BELAY**
    - NO USE AFTER 8/1
- **LASSONDE PAPPAS**
  - **RIMON, SCORPION, OBERON, KERB OR DITHANE**
    - NO USE ALLOWED
  - **LORSBAN, ORTHENE**
    - NO USE AFTER 6/22
  - **SEVIN, BRAVO**
    - NO USE AFTER 7/25
  - **QUINSTAR**
    - 100 DAY PHI AND INFORM HANDLER

## Pesticide Worker Safety

Pesticide Worker Safety  
Home

How EPA Protects Workers  
from Pesticide Risk

Recognition and  
Management of Pesticide  
Poisonings

In Case of Pesticide  
Poisoning

Agricultural Worker  
Protection Standard (WPS)

Safety Information Related  
to the Worker Protection  
Standard

How to Get Certified as a  
Pesticide Applicator

Pesticide Containers

Pesticide Containment  
Structures

# Revised Certification Standards for Pesticide Applicators

Esta página web está disponible [en español](#)

EPA has finalized stronger standards for people who apply restricted use pesticides (RUPs). These revisions to the Certification of Pesticide Applicators rule will reduce the likelihood of harm from the misapplication of toxic pesticides. Pesticide use will be safer with increased supervision and oversight. These revisions will help ensure that RUPs are used safely.

[Read the official version of the final rule in the Federal Register.](#)

On this page:

- [What are the major changes to the Certification of Pesticide Applicators Rule?](#)
- [When will these changes take place?](#)
- [Who does this rule affect, and how?](#)

### Related Information

- [See the Press Release](#)
- [Fact sheet on the Certification of Pesticide Applicators rule revision](#)
- [Current Certification of Pesticide Applicators rule vs. Revised rule](#)
- [Learn more about certification of pesticide applicators](#)
- [Current standards for Certification of Pesticide Applicators](#)

# EPA HAS REVISED CERTIFICATION STANDARDS FOR PESTICIDE APPLICATORS

- RESTRICTED USE COMPOUNDS

- FEDERALLY RESTRICTED DIAZINON AND LORSBAN (AND VAPAM)
- STATE RESTRICTED BRAVO, ACTARA, INTREPID, SCORPION AND WEEDAR 64
- STRICTER RULES REGARDING “DIRECT SUPERVISION” OF LICENSED APPLICATORS WHO USE RESTRICTED USE PESTICIDES
- LIKELY MA PESTICIDE EXAMS WILL BE UPDATED!

# EPA HAS REVISED CERTIFICATION STANDARDS FOR PESTICIDE APPLICATORS

- AGE LIMIT 18 YEARS - FIRST-TIME EVER MINIMUM AGE REQUIREMENT: CHILDREN UNDER 18 ARE PROHIBITED FROM HANDLING PESTICIDES - WITH AN EXEMPTION FOR FAMILY FARMS!
- FAMILY INCLUDES SPOUSE, PARENTS, FOSTER PARENTS, CHILDREN, STEPCHILDREN, FOSTER CHILDREN, BROTHERS + SISTERS!
- NOW IN 2018 INCLUDES IN-LAWS, GRANDPARENTS, GRANDCHILDREN, AUNTS + UNCLES, NIECES + NEPHEWS, AND 1<sup>ST</sup> COUSINS!



- EPA MADE CHANGES TO WPS
- CHANGES EFFECTIVE JANUARY 2, 2017
- EDUCATION NOW, COMPLIANCE ASSISTANCE NOW
- WORKER PROTECTION STANDARD IS TO PROTECT WORKERS AND REDUCE PESTICIDE POISONING

# WHO DOES WPS APPLY TO?

ANY ONE YOU HIRE WHO STEPS  
ON BOG ONCE A PESTICIDE  
APPLICATION HAS BEEN APPLIED  
AND FOR 30 DAYS AFTER REI IS UP.

- DO NOT NEED TRAINING IF YOU  
HAVE A PESTICIDE LICENSE!

- **WORKER**
- PULLING WEEDS
- SCOUTING
- PLANTING
- HARVESTING
- **HANDLER**
- APPLYING PESTICIDE
- HANDLING CHEMIGATION HEADS
- CLEANING OR REPAIRING SPRAY EQUIPMENT
- MIX LOAD OR TRANSFER PESTICIDE
- HANDLE PESTICIDE CONTAINERS

The screenshot shows the EPA website header with the logo and navigation menu. The main content area features a breadcrumb trail: "You are here: EPA Home » Pesticide Worker Safety » Revisions to the Worker Protection Standard". The main heading is "Revisions to the Worker Protection Standard". A sidebar on the left contains links for "Pesticide Worker Safety Home" and "How EPA Protects Workers from Pesticide Risk".

EPA United States Environmental Protection Agency

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Pesticide Worker Safety

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# Revisions to the Worker Protection Standard

Pesticide Worker Safety Home

How EPA Protects Workers from Pesticide Risk

- **TRAINING EVERY YEAR**
  - NOT EVERY FIVE YEARS
- EXPANDED TRAINING INCLUDES INSTRUCTIONS TO REDUCE TAKE-HOME EXPOSURE FROM PESTICIDES ON WORK CLOTHING AND OTHER SAFETY TOPICS.
- WAITING ON NEW TRAINING MANUALS!
- **NO GRACE PERIOD OF FIVE DAYS**
  - TRAINING MUST BE BEFORE WORKER ENTERS AREA
  - ANY TREATED AREA WITH PESTICIDE IN LAST 30 DAYS
- **MUST TRAIN BEFORE HERBICIDES GO ON!**
- **HARVEST OK IF NO APPLICATIONS IN 30 DAYS!**

# WPS HANDLER TRAININGS 2017

◆ AT THE UMASS CRANBERRY STATION LIBRARY

◆ LAST WEDNESDAY OF SPRING MONTHS 2-4 PM

◆ ~~APRIL 26~~

◆ MAY 31

◆ JUNE 28

April 28 8 AM

◆ SEND ANY WORKERS, WEEDERS, SCOUTS, AND MECHANICS. TRAINING ONLY GOOD FOR 1 YEAR.

◆ \$5 COST







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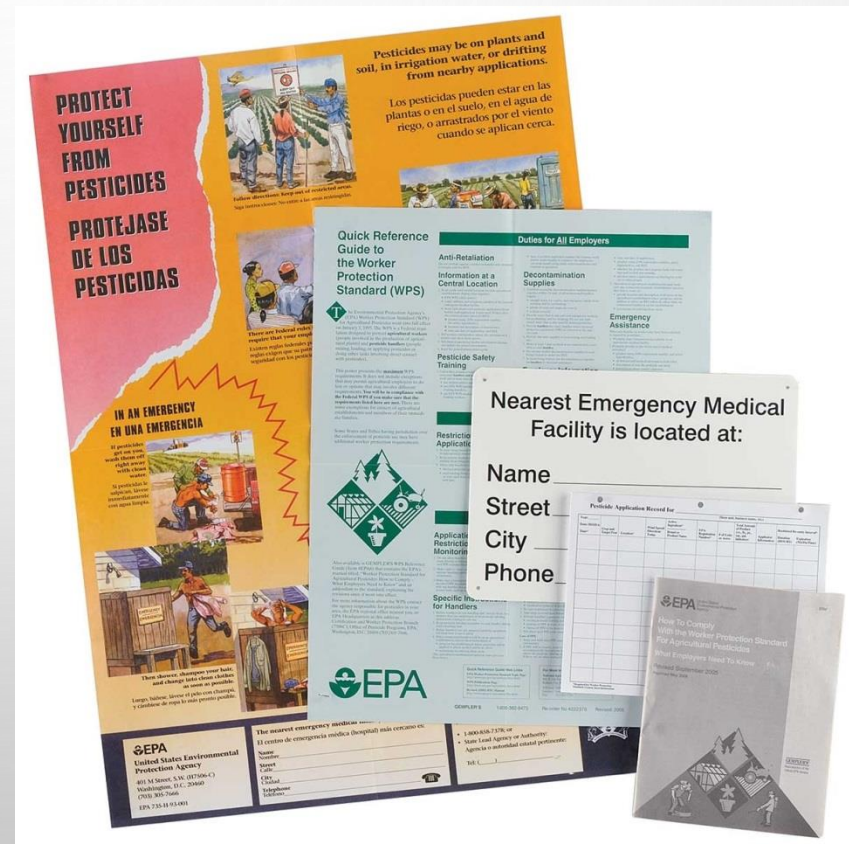
How EPA Protects Workers from Pesticide Risk

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# Revisions to the Worker Protection Standard

## CENTRAL DISPLAY LOCATION

- APPLICATION INFORMATION AT CENTRAL LOCATION
- A CENTRAL NOTIFICATION AREA SHOULD BE AN AREA THAT THE WORKERS/HANDLERS GO TO FIRST THING IN THE AM BEFORE WORKING.
- APPLICATIONS MUST BE POSTED.



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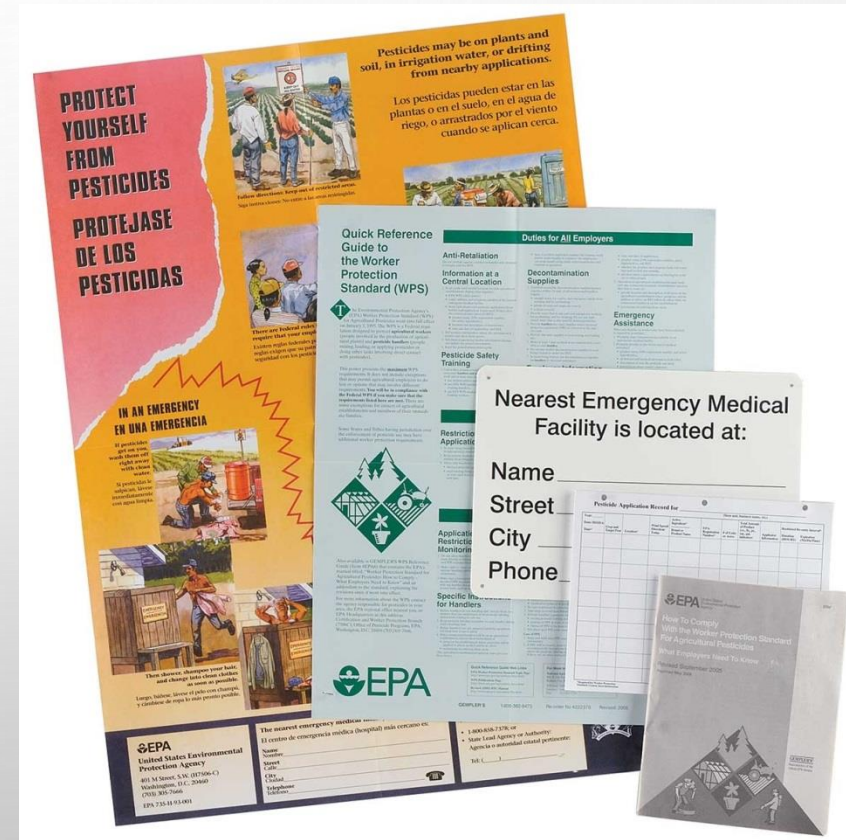
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# Revisions to the Worker Protection Standard

## CENTRAL DISPLAY LOCATION

- EPA WPS SAFETY POSTER
  - NAME, ADDRESS, AND TELEPHONE NUMBER OF THE NEAREST EMERGENCY MEDICAL FACILITY
- EACH PESTICIDE APPLICATION [FROM BEFORE EACH APPLICATION BEGINS UNTIL 30 DAYS AFTER THE REI]:
  - PRODUCT NAME, EPA REGISTRATION NUMBER AND ACTIVE INGREDIENT(S)
  - LOCATION AND DESCRIPTION OF TREATED AREA, MAP
  - TIME AND DATE OF APPLICATION, AND REI



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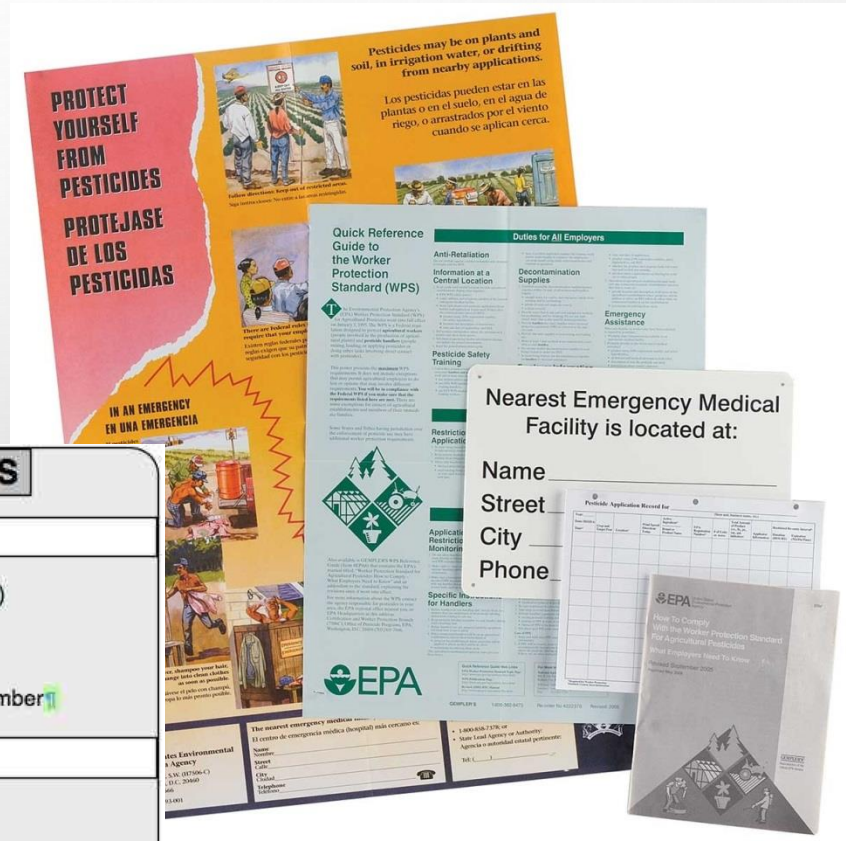
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# Revisions to the Worker Protection Standard

## CENTRAL DISPLAY LOCATION

- APPLICATION INFORMATION AT CENTRAL LOCATION

- 2018 MUST ALSO INCLUDE AN SDS (MSDS) WITH IT!



MATERIAL SAFETY DATA SHEET - 9 SECTIONS	
<b>SECTION 1 - PRODUCT INFORMATION</b>	
Product Name	WHMIS Classification (optional)
Product Use	
Manufacturer's Name	Supplier's Name
Physical and Mailing Address	Physical and Mailing Address
Emergency Contact Phone Number	Emergency Contact Phone Number
<b>SECTION 2 - HAZARDOUS INGREDIENTS</b>	
Hazardous Ingredients (very specific)	
<b>SECTION 3 - PHYSICAL DATA</b>	

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# Revisions to the Worker Protection Standard DECONTAMINATION

## OLD WPS

- RUNNING WATER
- SOAP
- SINGLE USE TOWELS
- CHANGE OF CLOTHING\*\*
- EYEWASH\*\*
- IF MORE THAN ¼ MILE FROM ANY WORKING AREA, PORTABLE DECONTAMINATION IS NEEDED

*workers*

*\*\* Early entry*

## NEW WPS

### IN ADDITION TO THE OLD REQUIREMENTS:

- ADDITIONAL SAFETY POSTER MUST BE POSTED
- MUST HAVE ENOUGH WATER FOR:
  - 1 GALLON PER WORKER
  - 3 GALLON PER HANDLER
- MUST HAVE ENOUGH WATER FOR 15 MIN EYEFUSH IF PRODUCT USED REQUIRES EYE PROTECTION AT MIX/LOAD SITES
  - 0.4 GALLONS PER MINUTE FOR 15 MINUTE OR
  - 6 GALLONS AT A GENTLE FLOW FOR 15 MIN

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# Revisions to the Worker Protection Standard DECONTAMINATION

**Provide water for decontamination**

Requiring water available

1 gallon per worker, 3 gallons per handler

**Eyewash water available for handlers**

6 gallons of water available at mix/load sites  
if product requires eye protection

# Cranberry Labels that require protective eyewear...

- **Diazinon**
- **Bravo – Chlorothalonils**
  - Bravo Ultrex
  - Bravo Weatherstik
  - Chloronil 720, Initiate 720
- **Champ, Badge – coppers**
- **Pyramite/Nexter – Pyridaben**
- **2,4-D granular, weedar 64**
- **Rimon – Novaluron**

Provide decontamination water  
1 gallon per worker  
3 gallons per handler

All others  
require 6 gallons  
of water at  
mix/load sites

# NOTIFICATION FOR 48 HOUR+

- EXPANDED MANDATORY POSTING OF NO-ENTRY SIGNS FOR THE MOST HAZARDOUS PESTICIDES.
- THE SIGNS PROHIBIT ENTRY INTO PESTICIDE-TREATED FIELDS UNTIL RESIDUES DECLINE TO A SAFE LEVEL.
- IF REI IS 48 HOURS OR GREATER, REQUIRES SIGN POSTING
  - DIAZINON
  - BADGE, CHAMP, KOCIDE, NU-COP - COPPERS
  - RIDOMIL, ULTRA FLOURISH – MEFENOXAMS
  - WEEDAR 64, 2-4 D'S



# NEW WPS PPE IS FOCUSED ON RESPIRATORS

If the label of the pesticide being used requires a respirator....

- MEDICAL EVALUATION
- FIT TESTING
  - FIT TEST RECORD
- RESPIRATOR TRAINING

OSHA BASED  
MEDICAL  
QUESTIONNAIRE

**Annually!**

# CRANBERRY COMPOUNDS REQUIRING RESPIRATORS

- DUST/MIST FILTERING - DUSTS, POWDERS, MISTS, AND SPRAYS. TC-21C, N95
- VAPOR REMOVING - GASES AND VAPORS.
  - TC-23C - CARTRIDGE FOR ORGANIC VAPORS + PREFILTER
  - TC-14G - CANISTER FOR ESTICIDES/ORGANIC VAPORS

Sevin Lorsban  
Nexter Ferbam  
Bravo Ultrex  
Manzate Flowable



Diazinon  
Imidan and  
all Echo  
formulations



# CRANBERRY COMPOUNDS REQUIRING RESPIRATORS

**ANNUALLY**

• DUST/MIST FILTERING -  
**FIT TEST**  
DUSTS, POWDERS, MISTS,  
AND SPRAYS. TC-21C,  
N95

**RESPIRATOR**

• **TRAINING**  
VAPOR REMOVING -  
GASES AND VAPORS.

• **MEDICAL**  
TC-23C - CARTRIDGE FOR  
ORGANIC VAPORS +  
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Sevin Lorsban  
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DoMyOwnPestControl.com

**Diazinon**  
**Imidan and**  
**all Echo**  
**formulations**



## Revisions to the Worker Protection Standard

Starting in 2018

### APPLICATOR EXCLUSION ZONE (AEZ)

- NO ONE IN AREA WHEN APPLYING PESTICIDE OR THE APPLICATION SHOULD STOP!
- 25 FEET FROM EQUIPMENT ABSOLUTELY
- TO PROTECT WORKERS AND OTHERS FROM EXPOSURE TO PESTICIDE OVERSPRAY

# APPLICATOR EXCLUSION ZONE (AEZ)

IN EFFECT IN 2018!!!!

- 25 AROUND THE APPLICATION EQUIPMENT WHERE NO ONE IS ALLOWED IN DURING THE APPLICATION
- MOVING ZONE (IF MIST BLOWER)
- EXTENDS BEYOND THE BOUNDARIES OF THE FARM AND BEYOND FARM EMPLOYEES
- IF APPLICATOR SEES SOMEONE WITHIN THE AEZ, APPLICATOR MUST SUSPEND APPLICATION.

Entire  
chemigation  
line

# LABEL REVIEW

- ALL THE INFO IS ON THE LABEL
- DON'T BE SCARED OF LABELS
- THE BEST PLACE TO GET INFO ABOUT A PESTICIDE
- FIRST FEW BOXES HAVE MAIN INFO
  - REI, PHI, PPE
  - BEE TOX

# LABEL REVIEW

- BRAND NAME, INGREDIENTS AND TYPE OF PESTICIDE
- SIGNAL WORDS AND SYMBOLS
  - DANGER
  - WARNING
  - CAUTION
- STATEMENT OF PRACTICAL TREATMENT AND PRECAUTIONARY STATEMENT
  - PARTS OF THE BODY TO PROTECT
  - FIRST AID SECTION
- DIRECTIONS FOR USE
  - STORAGE, DISPOSAL
  - MIXING, LOADING AND APPLICATION
- AGRICULTURAL USE REQUIREMENTS
  - REI, PPE



← Brand Name  
 ← Ingredients  
 ← Type of Pesticide

®Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

Group	M3	FUNGICIDE
-------	----	-----------

Active Ingredients

mancozeb †: A coordination product of zinc ion and manganese ethylene bisdithiocarbamate.....	37.0%
In which the ingredients are:	
Manganese <sup>++</sup> .....	7.4%
Zinc <sup>++</sup> .....	0.9%
Ethylene bisdithiocarbamate ion (C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> S <sub>4</sub> ).....	28.7%
Other Ingredients.....	63.0%
Total.....	100.0%

**SHAKE WELL BEFORE USE:** Grasp container by handle and mix contents with a twisting motion followed by inverting. Repeat this action 5 to 10 times to ensure product is completely resuspended.

† Equivalent to 4 lb active ingredient per gallon  
 EPA Reg. No. 62719-396

**Personal Protective Equipment (PPE)**

For guidance on materials that are chemical resistant to this product, follow the instructions for category **A** on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators and other handlers must wear:**

- long-sleeved shirt
- long pants
- chemical-resistant gloves made of any waterproof material (except pilots, groundboom applicators, airblast applicators and seed-treatment handlers who are bagging treated seed or sewing bags containing treated seed)
- shoes and socks

**For Lettuce (leaf and head) and Peppers**

Aerial application of Dithane F-45® Rainshield® on lettuce (leaf and head) and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a particulate respirator with an N, R or P filter, NIOSH approval prefix TC 84 -A.

**User Safety Recommendations**

- Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
  - Remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing.
  - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards**

This pesticide is toxic to aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.



# Dithane F-45<sup>®</sup>



FUNGICIDE

<sup>®</sup>Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

Group	M3	FUNGICIDE
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# EPA #

# PPE and

# precautionary statement

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Sevin® XLR PLUS  
brand Carbaryl Insecticide

Brand Name

Ingredients

Type of Pesticide

**Intended for Agricultural or Commercial Use**

**ACTIVE INGREDIENTS:**

Carbaryl (1-naphthyl N-methylcarbamate)..... 44.1% by Wt.

**INERT INGREDIENTS:**..... 55.9% by Wt.

(Contains 4 pounds Carbaryl per Gallon)

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**Signal Word**

For TRANSPORTATION Emergencies ONLY Call 24 Hours A Day (800) 424-9300 (CHEMTREC)

**FIRST AID**

**Signal Word**

Carbaryl is an N-Methyl Carbamate Insecticide.

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor for treatment advice.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

\* **Danger**  
\* **Warning**  
\* **Caution**

# Sevin XLR Plus

EPA #

## CAUTION

For TRANSPORTATION Emergencies ONLY Call 24 Hours A Day (800) 424-9300 (CHEMTREC)

## FIRST AID

Carbaryl is an N-Methyl Carbamate Insecticide.

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For MEDICAL Emergencies Call 24 Hours A Day 1-866-374-1975.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**NOTE TO PHYSICIAN:** Carbaryl contains an N-methyl carbamate that inhibits cholinesterase. Drugs like 2-Pam (pyridine-2-aldoxime methiodide) are not recommended. To aid in the confirmation of diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Analysis will be arranged by Tesserderlo Kerley, Inc. Consultation on therapy can be obtained at all hours by calling the appropriate emergency number 1-866-374-1975 (U.S.A.)

E.P.A Reg. No. 61842-37

E.P.A. Est. No. 264-MO-02

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

##### CAUTION

Harmful if swallowed, absorbed through the skin, or inhaled. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**OVEREXPOSURE MAY CAUSE:** Salivation, watery eyes, pinpoint eye pupils, blurred vision, muscle tremors, difficult breathing, excessive sweating, abdominal cramps, nausea, vomiting, diarrhea, weakness, headache. IN SEVERE CASES CONVULSION, UNCONSCIOUSNESS AND RESPIRATORY FAILURE MAY OCCUR. SIGNS AND SYMPTOMS OCCUR RAPIDLY FOLLOWING OVEREXPOSURE TO THIS PRODUCT.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers applying with open cab airblast equipment at application rates equal to or greater than 5 quarts of SEVIN® brand XLR PLUS Carbaryl Insecticide per acre must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear, and
- NIOSH-approved dust/mist filtering respirator with NIOSH/MSHA approval number prefix TC-21C or NIOSH-approved respirator with any N, R, P or HE filter.

All other mixers, loaders, applicators, and handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves, and
- Chemical-resistant apron, when mixing, loading, or cleaning up spills or equipment.

In addition, mixers and loaders supporting aerial or chemigation applications must wear:

- A NIOSH-approved dust/mist filtering respirator with NIOSH/MSHA approval number prefix TC-21C or
- A NIOSH-approved respirator with any N, R, P or HE filter.

PPE and  
precautionary statement



# AGRICULTURAL USE REQUIREMENTS

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the Restricted-entry interval (REI). The REI for carbaryl is 12 hours unless otherwise specified in the directions for use associated with each crop.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls over short-sleeve shirt and short-pants,
- Chemical-resistant footwear plus socks,
- Chemical-resistant gloves made of any waterproof material, and
- Chemical-resistant headgear if overhead exposure.

When the Restricted-Entry Interval for a crop is 7 days or longer, you must by posting warning signs at entrances to treated area.

## Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

• SEVIN XLR 12 HRS

• DITHANE F-45 24 HRS

# CHECK ON THE LABEL

- FIND CRANBERRY
  - SPECIFIC TARGET
  - CHEMIGATION
  - CAUTIONS
- SUPPLEMENTAL LABEL
  - CHART BOOK
  - NEWSLETTER
  - CUTWORMS AND WINTER MOTH ARE NOT LISTED ON AVAUNT OR DIAZ, BUT FIFRA 2EE REC IN CHART BOOK
  - NO LABELS HAVE SCALE ON IT!
    - NEED A NEWSLETTER WITH RECOMMENDATION
    - OR LETTER FROM STATION



# HOW TO KEEP SAFE – REDUCE YOUR RISK!!

- READ THE LABEL
- KNOW YOUR PRODUCTS
- USE COMMON SENSE
- FOLLOW SAFETY PRACTICES
- WEAR YOUR PPE, AT LEAST WHAT THE LABEL SAYS
- DON'T BE LAZY

# METHODS OF EXPOSURE



## • DERMAL

- MOST COMMON EXPOSURE
- RINSE WITH WATER
- REMOVE CONTAMINATED CLOTHING
- WASH WITH LOTS OF SOAP AND WATER

## • ORAL

- RINSE MOUTH WITH WATER
- DO NOT INDUCE VOMITING IF...
  - CORROSIVE PESTICIDE
  - VICTIM IS UNCONSCIOUS
  - HAVING CONVULSIONS
  - PETROLEUM BASED PRODUCT
  - LABEL SPECIFIES NOT TO INDUCE VOMITING







PESTICIDES REMOVED  
FROM THEIR ORIGINAL  
CONTAINERS ARE THE  
HIGHEST CAUSE OF  
PESTICIDE POISONINGS  
IN ADULTS AND  
CHILDREN!

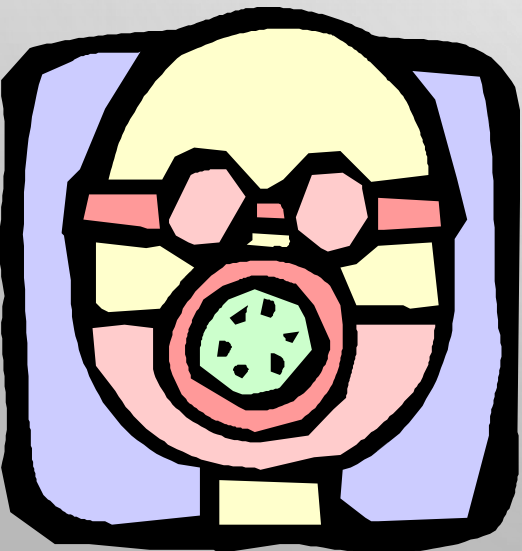
# METHODS OF EXPOSURE

- **INHALATION**

- REMOVE TO FRESH AIR
- LOOSEN TIGHT CLOTHING
- KEEP AIR PASSAGES CLEAR
- PERFORM ARTIFICIAL RESPIRATION IF NECESSARY

- **EYE EXPOSURE**

- WASH EYE WITH A GENTLE STREAM OF CLEAN WATER FOR 15+ MINUTES
- GET MEDICAL ATTENTION IF THERE IS PAIN OR REDDENING OF THE EYE



LABELS SAY...

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.



Wear at least the PPE that is recommended

Use common sense!!

# PERSONAL PROTECTIVE EQUIPMENT

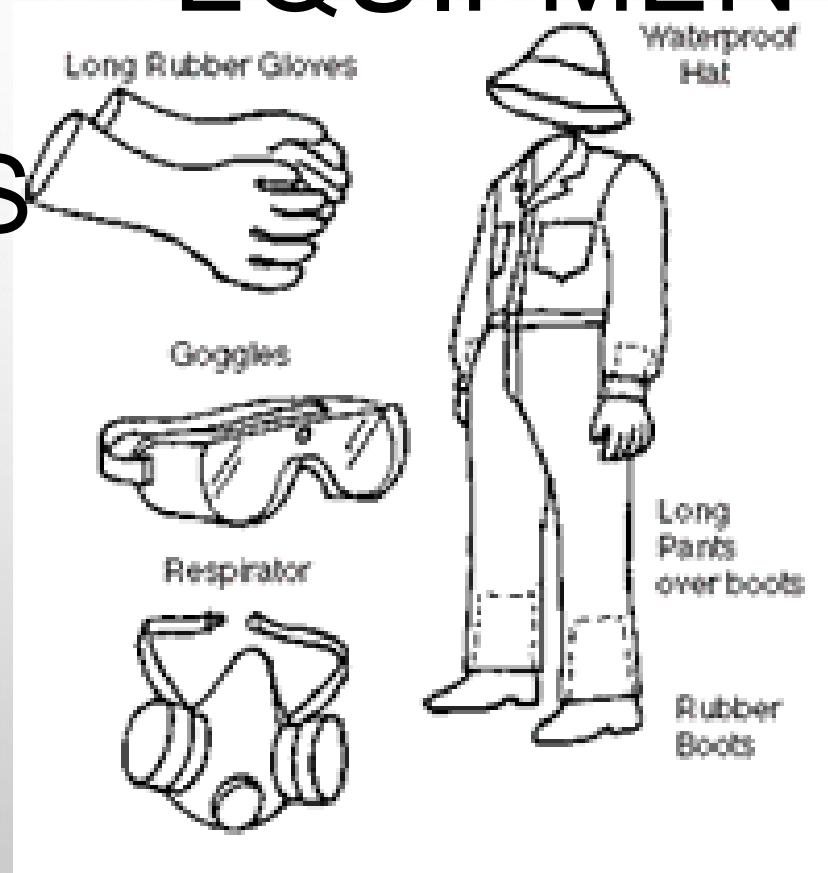
PPE...

THE BEST WAY TO REDUCE  
EXPOSURE AND REDUCE YOUR RISK!



# PERSONAL PROTECTION EQUIPMENT

- COVERALLS
- GLOVES
- BOOTS



- EYEWEAR
- RESPIRATOR
- APRON
- HAT

# ALL PESTICIDES REQUIRE...

- LONG-SLEEVED SHIRT AND PANTS
- SHOES AND SOCKS
- CHEMICAL RESISTANT GLOVES

---

When handling the concentrate of **DIAZINON OR LORSBAN**

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves
- Chemical resistant apron
- Chemical resistant footwear and socks
- A NIOSH approved pesticide respirator

# PERSONAL PROTECTIVE EQUIPMENT WORKER PROTECTION REGULATIONS...

- MUST BE PROVIDED BY EMPLOYER

“COMPANIES ARE REQUIRED TO MAKE AVAILABLE TO ALL WORKERS WHATEVER PROTECTIVE EQUIPMENT IS REQUIRED FOR HANDLING THE CHEMICALS THEY USE”

- PPE SHOULD BE IDENTIFIED
- TRAINING SHOULD BE PROVIDED
- COMPANY SHOULD IMPLEMENT AND ENFORCE PPE PROGRAM

# GLOVES



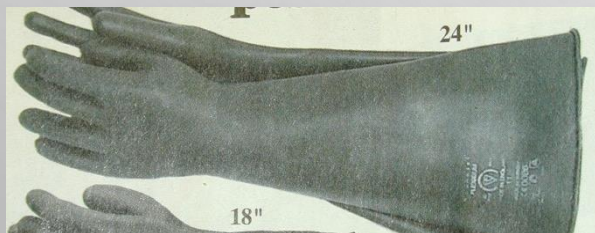
Barrier laminate

## Chemically Resistant

- Wash the gloves on your hands
- Wash your hands
- If you plan to use again - wash in bucket of heavy-duty detergent solution right away



Disposable Nitrile gloves



Natural rubber



Neoprene



Thicker  
Nitrile

# CHEMICAL RESISTANT FOOTWEAR

- ~~• SHOES~~
  - ~~• SNEAKERS~~
  - ~~• LEATHER~~
  - ~~• CANVAS~~
  - ~~• FABRIC~~
  - ~~• SANDALS~~

Chemical Resistant Shoes  
Chemical Resistant Boots  
Chemical Resistant  
Shoe Covering



VINYL  
BOOTS



PVC BOOTS



# EYEWEAR

- PROTECTIVE EYEWEAR

- SHIELDED SAFETY GLASSES
- FACE SHIELD
- GOGGLES
- FULL FACE STYLE RESPIRATOR



# SAMPLE ORAL TOXICITY VALUES

## FOR COMMONLY-USED CRANBERRY INSECTICIDES

PESTICIDE	(PRODUCT)	ACUTE ORAL LD <sub>50</sub> (MG/KG - MALE RAT)
<b>CHLORPYRIFOS</b>	( <b>LORSBAN</b> )	150 382 500 776
<b>PHOSMET</b>	( <b>IMIDAN</b> )	275
<b>DIAZINON</b>	( <b>DIAZINON</b> )	350 787 1600
<b>CARBARYL</b>	( <b>SEVIN</b> )	406 699 699
<hr/>		
ACEPHATE	(ORTHENE)	688 945 1030
IMIDACLOPRID	(ADMIRE)	609 4690 4870
ACETAMIPRID	(ASSAIL)	886
THIAMETHOXAM	(ACTARA)	1563
PYRIDABEN	(NEXTER)	1930
<hr/>		
CLOTHIANIDIN	(BELAY)	3044
INDOXACARB	( <b>AVAUNT</b> )	1867 3619
METHOXYFENOXIDE	( <b>INTREPID</b> )	> 5000
SPINETORAM	( <b>DELEGATE</b> )	> 5000
CHLORANTRANILIPRILE	( <b>ALTACOR</b> )	> 5000

I  
Danger  
0-50

II  
Warning  
50-500

III  
Caution  
500-5,000

IV  
Caution  
>5,000

**ACUTE TOXICITY**

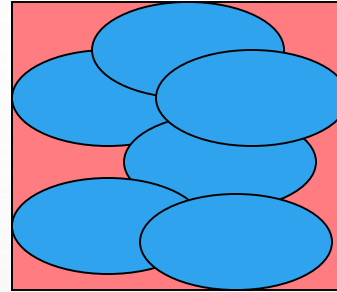
# ORGANOPHOSPHATES (OP)

- WIDESPREAD USE AND HIGH TOXICITY
- INTERFERES WITH IMPORTANT NERVOUS SYSTEM ENZYME, CHOLINESTERASE
- CHOLINESTERASE INHIBITORS – THE CHOLINESTERASE IS NOT AVAILABLE TO HELP BREAK DOWN THE ACETYLCHOLINE AND THE NEUROTRANSMITTERS CONTINUE TO FIRE
- NERVES CONTINUOUSLY SEND MESSAGES TO THE MUSCLES
- CAUSING TWITCHING, CONVULSIONS, SEIZURES AND DEATH
- OVERSTIMULATION OF THE NERVOUS SYSTEM

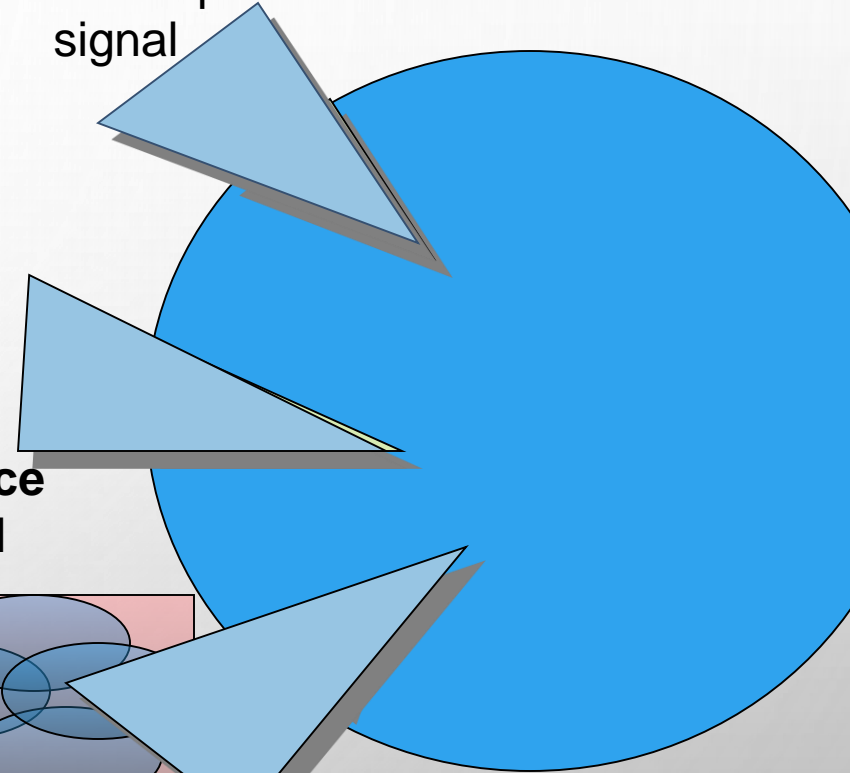
# PESTICIDES ACT AS NEUROTOXINS

Signals are transmitted from neuron to neuron

Chemical  
Neurotransmitter  
Acetylcholine



Binds to  
receptors  
to complete  
signal

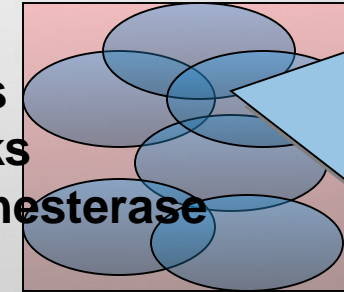


Neuron

A single  
nerve cell

**OP's poisoning is not reversible, the insecticide will not release the bound cholinesterase. The body must produce new cholinesterase to recover (several weeks!)**

**Carbamate (Sevin) poisoning is somewhat reversible and breaks down and releases some cholinesterase**



SYNAPSE



Gap between neurons

