



University of  
Massachusetts  
Amherst

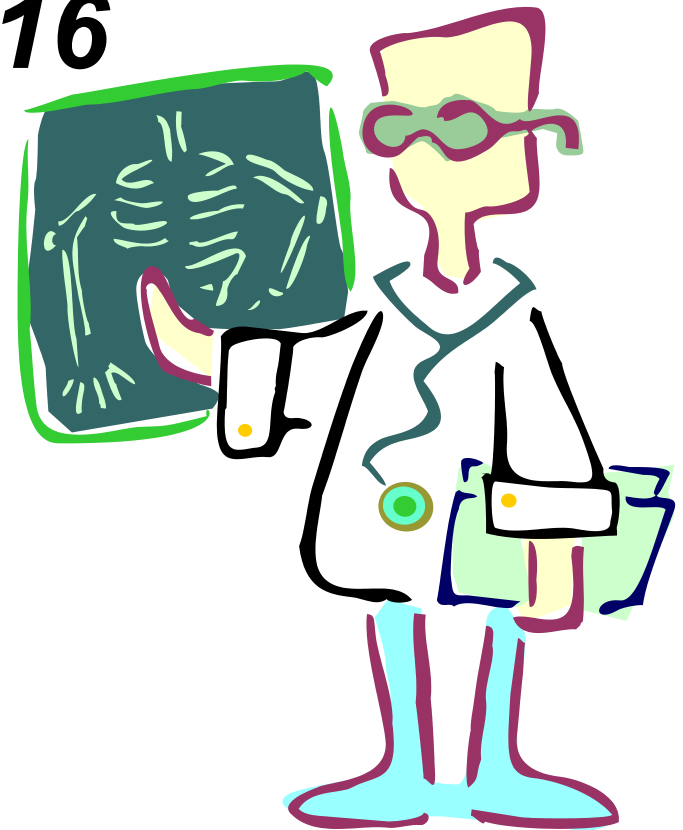
## Pesticide Use Review: MDAR State Agency EPA WPS Changes 2016

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# Pesticide Use Review

## *MDAR State Agency EPA WPS changes 2016*

Martha Sylvia  
Entomology Lab  
Cranberry Station  
UMass Amherst





# MDAR

## Massachusetts Department of Agricultural Resources

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### FIVE Divisions:

- ◆ ADMINISTRATION
  - ◆ AGRICULTURAL MARKETS
  - ◆ ANIMAL HEALTH
  - ◆ CROP AND PEST SERVICES
  - ◆ AGRICULTURAL CONSERVATION and TECHNICAL ASSISTANCE
- 



# MDAR - Pesticide Program

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- 
- ◆ Pesticide Licensing
    - Private Applicators Certification
    - Allows use of restricted use pesticides
  - ◆ Pesticide Enforcement - Inspections
  - ◆ Zone II issues
    - Intrepid, Bravo, Venom, and Actara
  - ◆ Register pesticide products in Massachusetts

PROTECT THE  
WATER SUPPLY



# MDAR

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## ◆ Commissioner of Ag Resources

### – John Lebeaux

- ◆ Shrewsbury Nurseries
- ◆ Urban Horticulturist in NYC
- ◆ 6 term selectman in Shrewsbury
- ◆ MA Board of Food and Agriculture

**NEW**



## ◆ Pesticide Bureau – Pesticide Operations Coordinator

– Steve Antunes-Kenyon



# MDAR

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- 
- ◆ **Chemist, Environmental Analyst – Zone II**
    - Hotze Wijnja
  - ◆ **Pesticide Enforcement, Field Inspectors**
    - Mike McClean                      – Sunny Cai
    - Taryn LaScola                      – Laurie Rocco
  - ◆ **Pesticide Program**
    - Susie Reed, Product Registration Specialist
    - Hoang Vo, License/Certification Renewal

# Pesticide Applicators Rules and Reviews



- A **Massachusetts Pesticide License** is required in Agriculture when an individual is going to use a **Restricted Use Pesticide (RUP)**.
- If an individual is using a **General Use Pesticide**, then he/she **does not need** to have a pesticide license. However, that individual would need to be **trained** as a handler to comply with the **Worker Protection Standard**.

# Restricted Use Pesticides

□ Actara\*

□ Intrepid

□ Bravo\*

□ Venom

State restricted because  
of groundwater concerns

\* = possible or probable carcinogens

□ Diazinon

Restricted because of avian  
and aquatic toxicity concerns

□ Lorsban

Restricted because of  
mammalian toxicity “Warning”

□ Weedar 64

Restricted because human toxicity  
concerns “Danger”

□ 2, 4-D Granular

Irreversible eye damage!

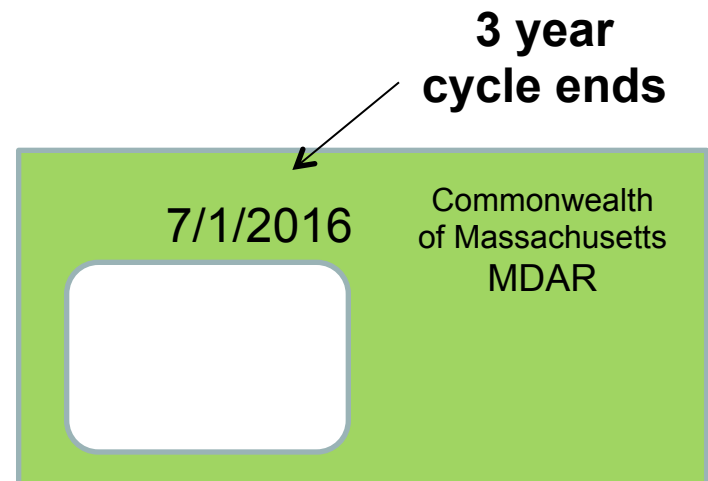
# RESTRICTED USE COMPOUNDS



- Commercial Applicator Certification (Custom Ag Cat. 33)
  - Restricted use compound for hire on someone else's property
  - Beatons Cran Growers Service, SureCran, Agricare, Firefly
  - Workers under commercial applicator can have only core license
- Private Certification (Cranberries Cat. 30)
  - Restricted use compound on your own property

# Private Certification, Cranberries, Category 30

- **Audits** on the increase, up to 40%
- Sent out in April
- 3 year cycle
  - 7/1/2013 - 6/30/2016
  - 7/1/2014 - 6/30/2017

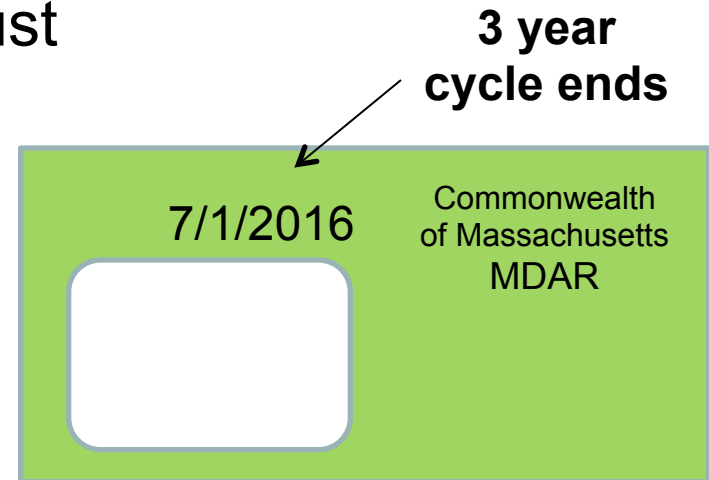


- Need 12 credits in that time
- Must produce documents
- Return by August

# Private Certification Cranberries

## **Audits** on the increase Cat. 30

- Sent out April
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- 3 year cycle
  - 7/1/2013 - 6/30/2016
  - 7/1/2013 - 6/30/2017
- Need 12 credits in that time
- Must produce documents



100% of the recent certifications get audits,  
then 20-50% going back in time.  
(Heavily weighed to recent certifications)

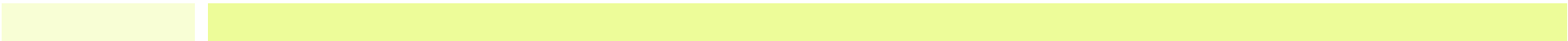
376 cranberry certifications, 191 up for audit 7/1/2015  
but only 3% new, 90% over 15 years old

# Cranberry Pesticide Exam

- 70% of those who take exam, pass
- New Core Manual instituted, 2014, 250 pages
- Core supplement, revised 2014, 29 pages
- Regulations
  - MA Pesticide Control Act (1978, amended 2000)
  - MA Pesticide Regulations (1979, amended 2015)
- Cranberry Manual, 1999 old version
- Worker Protection Standard (How to comply)

# WORKER PROTECTION STANDARD (WPS)



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- Federal Rule passed in the 90's
  - Rule to protect workers/handlers on Ag establishments
  - Pesticide Labels indicate that you must follow WPS, which then makes it LAW
- 



# EPA's WPS

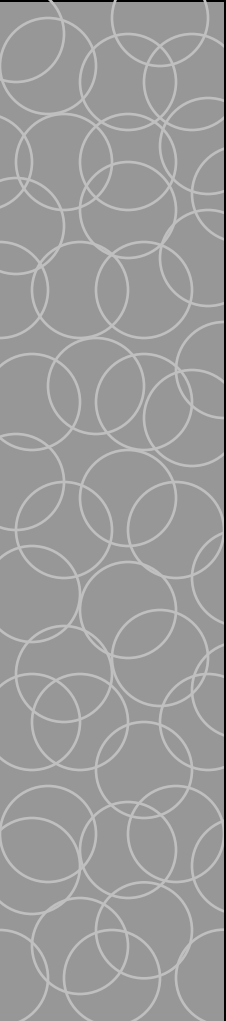
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- 
- ◆ Worker Protection Standard
  - ◆ protect agricultural workers from the effects of exposure to pesticides
  - ◆ aimed at reducing the risk of pesticide poisonings and injuries among agricultural workers and handlers of agricultural pesticides
- 



# Workers exposed to pesticides?

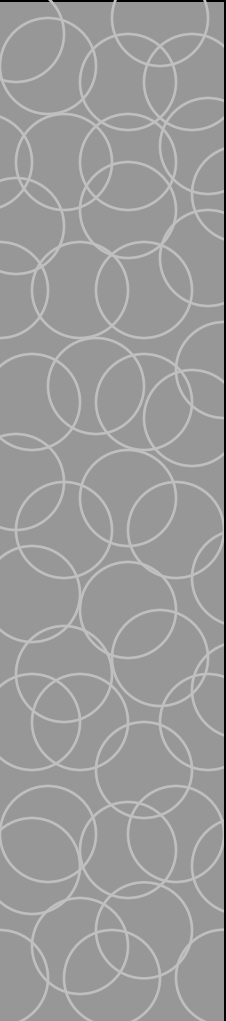

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- 
- ◆ Mixing and loading the pesticide into application equipment, but not restricted use!
  - ◆ Applying pesticides, like roundup
  - ◆ Handling irrigation/chemigation heads
  - ◆ Entering areas where pesticides have been applied to scout, weed, or repair heads, after the REI is up!
  - ◆ Do not need training if you have a pesticides license!



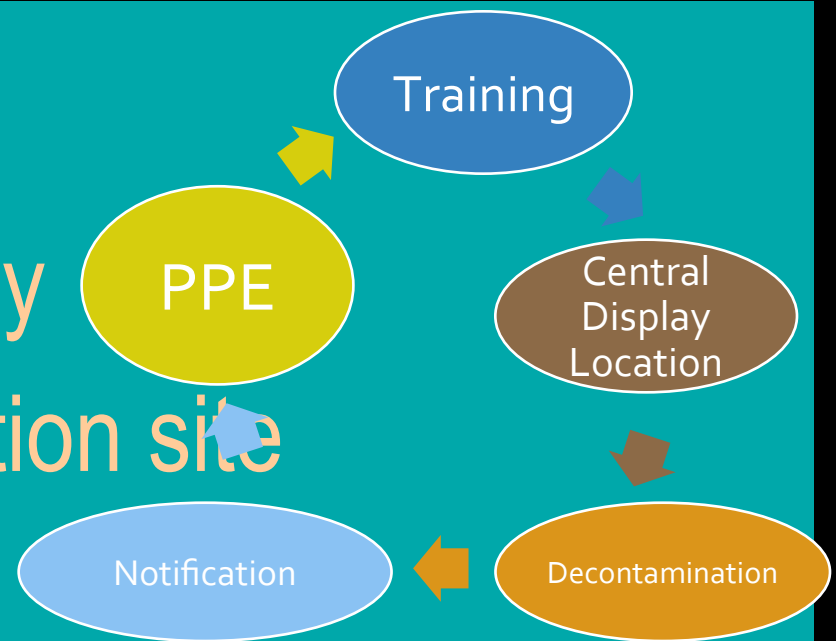
# Changes in WPS Trainings

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- 
- ◆ EPA is making changes to WPS
  - ◆ Comment period is over, changes being phased in starting in 2017
- 

# Five Parts of WPS

- ◆ Training
- ◆ Central display
- ◆ Decontamination site
- ◆ Notification
- ◆ Personal protective equipment



# Starting in 2017

- ◆ Training EVERY YEAR, instead of every five years
  - Expanding content of training
  - Keep records for 2 years
- ◆ NO grace period of 5 days, training must be before worker enters area treated with pesticide in last 30 days
  - Before herbicides go on and at harvest ok

# TRAINING

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## OLD WPS

- Must a trained handler, certified applicator OR attended the Train-the Trainer
- Training good for five years
- Record of training, optional
- 5 day grace period before training

## NEW WPS

- Must be certified applicator OR attend the Train-the Trainer course
- Training needs to be done annually
- Record of training, required
- Training must be done prior to any entry of areas that are treated or handling of pesticides

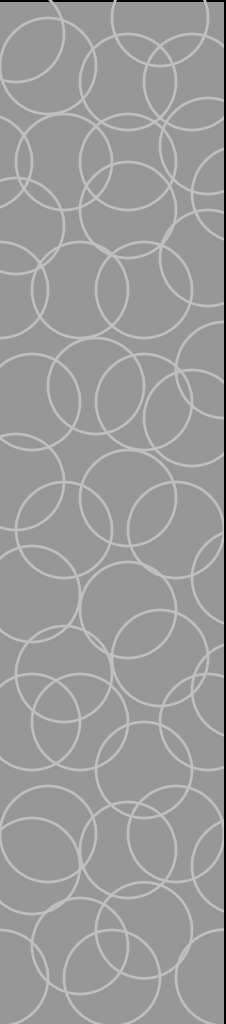
**\*\*\*New Training Content Jan. 2018\*\*\***





# Requirements of WPS

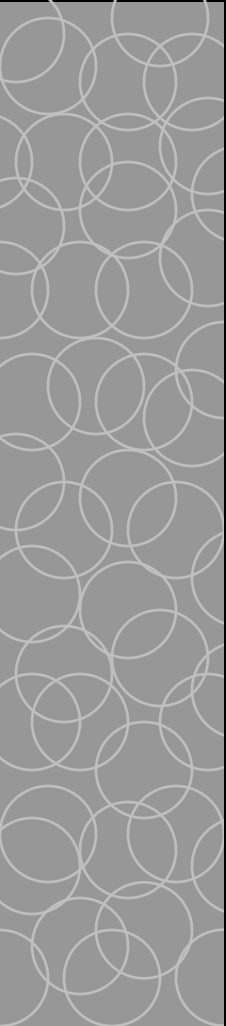
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- ◆ Requires untrained workers to be provided basic pesticide information before entering pesticide-treated areas
    - You can do this, word of mouth
      - ◆ Pesticides, protection, signs, washing
    - Then official training within 5 days of working in pesticide-treated areas
    - Still good for 5 years, but will be every year



# WPS Trainings 2016


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- 
- ◆ At the Cranberry Station Library
  - ◆ Last Wednesday of upcoming months
    - ◆ April 27 2-4
    - ◆ May 25 2-4
    - ◆ June 29 2-4
  - ◆ Send any workers, weeders, scouts, and mechanics. Training good for 5 years!
  - ◆ \$5 cost



# Starting in 2017 NOTIFICATION

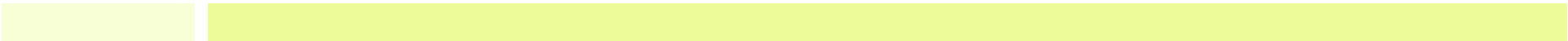
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- 
- ◆ Application information at central location
    - Must include an SDS (MSDS) with it!
  - ◆ REI 48 hours or greater requires sign posting
    - Diazinon
    - Badge, Champ, Kocide, Nu-Cop - coppers
    - Ridomil, Ultra Flourish – mefenoxams
    - Weedar 64, 2-4 D's

# Training Step By Step

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## 2016

1. Determine who needs to be trained or RE-Trained (per five year requirement)
  2. Be sure that trainer has Private Certification License OR has attended the train the trainer course
  3. Use existing training materials
- 
- A decorative horizontal bar at the bottom of the slide, consisting of two segments: a shorter light green segment on the left and a longer, darker green segment on the right.

# Training Step By Step

2017

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1. Provide training to ALL workers/handlers prior to them starting work
2. Be sure that trainer has Private Certification License OR has attended the train the trainer course
3. Use existing training materials
4. Obtain a record of the training:
  - Individual name & signature
  - Trainer name & qualification
  - Date of training
  - Employer Name
  - How training was given

# CENTRAL DISPLAY LOCATION

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## OLD WPS

- Safety Poster
- Application Records:
  - Date, REI, Product Name & EPA Reg#, A.I.

## NEW WPS

- New Safety Poster in 2018
- Application records must include start and end time of application
- SDS sheets kept in this area

# DECONTAMINATION

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## OLD WPS

- Running water
- Soap
- Single use towels
- Change of clothing\*\*
- Eyewash\*\*
- If more than ¼ mile from any working area, portable decon. is needed

## NEW WPS


### **In addition to the old requirements:**

- Additional Safety Poster must be posted
- Must have enough water for 15 min eyeflush
  - 0.4 gallons per minute for 15 minute or
  - 6 gallons at a gentle flow for 15 min
- Must have enough water for:
  - 1 gallon per worker
  - 3 gallon per early entry worker
  - 3 gallon per handler



# Changes in WPS Trainings

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- 
- ◆ Requiring water available
    - 1 gallon per worker, 3 gallons per handler
  - ◆ Provide water for decontamination
  - ◆ Eyewash water available
  - ◆ 6 gallons of water available at mix/load sites if product requires eye protection

# NOTIFICATION

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## OLD WPS

- Outside applications, choose to either notify verbally or by posting signs...UNLESS label states to do both
- Inside applications, post signs on entrances to treated areas

## NEW WPS

- Outside applications: choose to either notify verbally or by posting signs..UNLESS:
  - Label states to do both
  - If REI is 48 hours or more, MUST POST SIGNS
- Indoor applications: Must post signs on entrances to treated areas UNLESS:
  - REI of 4 hours or less, you can verbally notify

**\*\*\*READ YOUR LABELS TO ENSURE BOTH IS NOT REQUIRED!!\*\*\***

# APPLICATION EXCLUSION ZONE (AEZ)

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**NOT IN EFFECT UNTIL 2018!!!!**

- 25-100 feet around the application equipment where no one is allowed in during the application
- MOVING ZONE
- Extends beyond the boundaries of the farm and beyond farm employees
- If applicator sees someone within the AEZ, applicator must SUSPEND application.

## **100ft**

- Aerially
- Airblast
- As a spray using a spray quality (droplet spectrum) of smaller than medium (diameter less than 294 microns)
- Fumigant, Smoke, Mist or Fog

## **25ft**

- Not sprayed as any of the 100ft requirements and is sprayed at a height of greater than 12 inches from planting medium using a spray quality of medium or larger




# Changes in WPS Trainings

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## AEZ – Applicator Exclusion Zone

- ◆ No one in area when applying pesticide or the application should stop!
  - ◆ 100 feet from equipment if small particle size
  - ◆ 25 feet from equipment absolutely
- 



# Starting in 2018-Age Requirement

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- 
- ◆ First time-ever minimum age requirement: Children under 18 will be prohibited from handling pesticides, with an exemption for family farms.
  - ◆ Family includes spouse, parents, foster parents, children, stepchildren, foster children, brothers + sisters
  - ◆ Now in-laws, grandparents, grandchildren, aunts + uncles, nieces + nephews, and 1<sup>st</sup> cousins!
- 

# PPE



## NEW WPS is focused on RESPIRATORS

- Medical Evaluation
- Fit Testing
- Fit Test Record
- Respirator Training
- All done annually



# Respirators

MUST HAVE NIOSH/MSHA APPROVAL

- Sevin Lorsban
- Nexter
- Bravo Ultrex
- Manzate Flowable



DoMyOwnPestControl.com

- Vapor removing - gases and vapors.
    - TC-23C - cartridge for organic vapors + prefilter
    - TC-14G - canister for organic vapors
- Diazinon**  
**and**  
**Imidan**





# Starting in 2018 - Respirator

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

- ◆ FIT TEST

- ◆ RESPIRATOR TRAINING

- ◆ MEDICAL EVALUATION

# Respirators

MUST HAVE NIOSH/MSHA APPROVAL

**Sevin Lorsban**

- Dust/mist filtering - dusts, fumes, mists, and sprays.

**FIT TEST**

TC-21C, N95

**Nexter**

**Bravo Ultrex**

**Manzate Flowable**



DoMyOwnPestControl.com

**RESPIRATOR TRAINING**

- Vapor removing - gases and vapors.

**MEDICAL EVALUATION**

- TC-260 - cartridge for organic vapors + prefilter
- TC-14G - canister for organic vapors

**Diazinon and Imidan**



# All Pesticides require...

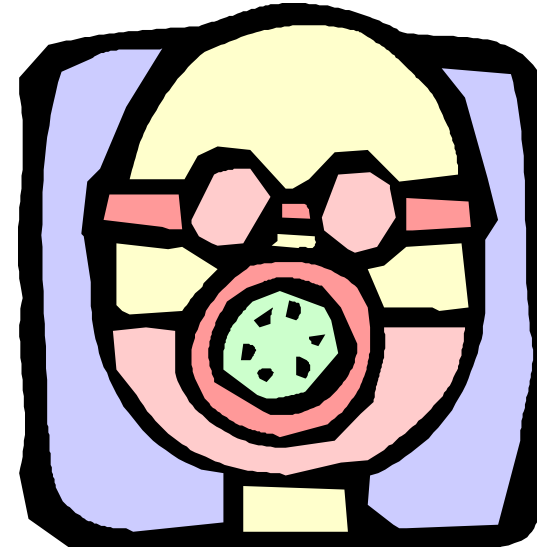
- Long-sleeved shirt and pants
- Shoes and socks
- Chemical resistant gloves

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 (TC-21 C)

## All Pesticides Require...

- Long-sleeved shirt and pants
- Shoes and socks
- Chemical resistant gloves




But Dithane and Manzate flowable require...

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


# All Other Pesticides still require...

- But Imidan requires...
  - Respirator TC-21 C



**May be fatal  
if swallowed, inhaled,  
or absorbed  
through the skin**

- ## But Nexter requires...
- Respirator TC-21 C
  - Protective Eyewear



**May be fatal  
if inhaled  
Causes moderate  
eye irritation**

# Respirators

MUST HAVE NIOSH/MSHA APPROVAL

**Sevin Lorsban**

- Dust/mist filtering - dusts, powders, mists, and sprays.  
TC-21C, N95

**Nexter**

**Bravo Ultrex**

**Manzate Flowable**



DoMyOwnPestControl.com

- Vapor removing - gases and vapors.

- TC-23C - cartridge for organic vapors + prefilter

- TC-14G - canister for organic vapors

**Diazinon**

**and**

**Imidan**



# Respirators

MUST HAVE NIOSH/MSHA APPROVAL

**Sevin Lorsban**

- Dust/mist filtering - dusts, fumes, mists, and sprays.

**FIT TEST**

TC-21C, N95

**Nexter**

**Bravo Ultrex**

**Manzate Flowable**



DoMyOwnPestControl.com

**RESPIRATOR TRAINING**

- Vapor removing - gases and vapors.

**MEDICAL EVALUATION**

- TC-260 - cartridge for organic vapors + prefilter
- TC-14G - canister for organic vapors

**Diazinon and Imidan**



## INSECTICIDES

% of MA growers using

□ Delegate – spinetoram	90%	
□ Altacor – chlorantraniliprole	85%	
□ Avaunt – indoxacarb	80%	( <u>restricted</u> )*GW
□ Diazinon ( <u>restricted</u> )	45%	post resp-23c eye
□ Intrepid – methoxyfenozide	35%	( <u>restricted</u> )*GW
□ Sevin – carbaryl	25%	
□ Actara – thiamethoxam	9%	
□ Admire – imidacloprid	6%	
□ Orthene – acephate	2%	
□ Pyramite/Nexter – Pyridaben	2%	respirator-21c eye
□ Assail – acetamiprid	1%	
□ Lorsban – chlorpyrifos ( <u>restricted</u> )	1%	respirator-21c
□ Imidan – phosmet	0.3%	respirator-23c

# FUNGICIDES

% of MA growers using

## □ Bravo – Chlorothalonils

82%

- Bravo Ultrex respirator 21c eye
- Bravo Weatherstik eye for workers
- Chloronil 720, Initiate 720 eye for workers

*(restricted use)\*GW*

## □ Indar – fenbuconazole

70%

## □ Abound – azoxystrobin

55%

## □ Indar – fenbuconazole

70%

## □ Manzate – EDBC' s

35% resp 21c

## □ Champ – coppers

20% post eye

## □ Proline – prothiaconazole

60%

## □ Phostrol – phosphites

10%

## □ Aliette WDG – fosetyl-al

3%

## □ Ridomil - mefenoxam

1% post

## □ Ferbam Granuflo

0.3%

## HERBICIDES

% of MA growers using

□ Callisto – mesotrione	60%	
□ Roundup – glyphosate	42%	
□ Casoron – dichlobenil	32%	
□ Devrinol – napropamide	18%	
□ Prism, Select – clethodim	8%	
□ Poast – sethoxydim	5%	
□ Stinger – clopyralid	3%	
□ Evital – norflurazon	2%	
□ QuinStar - quinclorac	2%	(MRL issues)
□ 2,4-D granular, weedar 64	0.3%	<b>post eye</b> ( <u>restricted use</u> )