2016


Martha Sylvia
UMass Cranberry Station, martys@umass.edu

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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

FIVE Divisions:

- ADMINISTRATION
- AGRICULTURAL MARKETS
- ANIMAL HEALTH
- CROP AND PEST SERVICES
- AGRICULTURAL CONSERVATION and TECHNICAL ASSISTANCE
MDAR - Pesticide Program

- 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
MDAR

- Commissioner of Ag Resources
  - John Lebeaux
    - Shrewsbury Nurseries
    - Urban Horticulturist in NYC
    - 6 term selectman in Shrewsbury
    - MA Board of Food and Agriculture

- Pesticide Bureau – Pesticide Operations Coordinator
  - Steve Antunes-Kenyon
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
• 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***
  - State restricted because of groundwater concerns

- **Intrepid**
- **Bravo***
  - * = possible or probable carcinogens

- **Venom**

- **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     • Return by August
• 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 Regulations (1979, amended 2015)

• Cranberry Manual, 1999 old version

• Worker Protection Standard (How to comply)
WORKER PROTECTION STANDARD (WPS)

• 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

- 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?

- 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

- 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
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

- 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

- 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

- 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
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
Training Step By Step

2017

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
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

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

- 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

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

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

- 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 1st cousins!
NEW WPS is focused on RESPIRATORS

• Medical Evaluation
• Fit Testing
• Fit Test Record
• Respirator Training
• All done annually
Respirators

MUST HAVE NIOSH/MSHA APPROVAL

- 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 pesticides and organic vapors

Sevin  Lorsban  Nexter  Bravo  Ultrex  Manzate  Flowable

Diazinon  and  Imidan
Starting in 2018 - Respirator

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

- FIT TEST
- RESPIRATOR TRAINING
- MEDICAL EVALUATION
Respirators
MUST HAVE NIOSH/MSHA APPROVAL

- Dust/mist filtering - dusts, mists, and sprays. TC-21C, N95
- Vapor removing - gases and vapors.
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FIT TEST
RESPIRATOR TRAINING
MEDICAL EVALUATION

Sevin Lorsban
Nexter
Bravo Ultrex
Manzate Flowable
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

But **Nexter** requires…

- Respirator TC-21 C
- Protective Eyewear

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

May be fatal if inhaled

Causes moderate eye irritation
Respirators

MUST HAVE NIOSH/MSHA APPROVAL

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

- Vapor removing - gases and vapors.
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Sevin  Lorsban  Nexter
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Respirators

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FIT TEST

RESPIRATOR TRAINING

- Diazinon and Imidan

MEDICAL EVALUATION

Sevin Lorsban Nexter Bravo Ultrex Manzate Flowable
<table>
<thead>
<tr>
<th>Insecticide</th>
<th>% of MA growers using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delegate – spinetoram</td>
<td>90%</td>
</tr>
<tr>
<td>Altacor – chlorantraniliprole</td>
<td>85%</td>
</tr>
<tr>
<td>Avaunt – indoxacarb</td>
<td>80%</td>
</tr>
<tr>
<td>Diazinon</td>
<td>45%</td>
</tr>
<tr>
<td>Intrepid – methoxyfenozide</td>
<td>35%</td>
</tr>
<tr>
<td>Sevin – carbaryl</td>
<td>25%</td>
</tr>
<tr>
<td>Actara – thiamethoxam</td>
<td>9%</td>
</tr>
<tr>
<td>Admire – imidacloprid</td>
<td>6%</td>
</tr>
<tr>
<td>Orthene – acephate</td>
<td>2%</td>
</tr>
<tr>
<td>Pyramite/Nexter – Pyridaben</td>
<td>2%</td>
</tr>
<tr>
<td>Assail – acetamiprid</td>
<td>1%</td>
</tr>
<tr>
<td>Lorsban – chlorpyrifos</td>
<td>1% (restricted)*GW</td>
</tr>
<tr>
<td>Imidan – phosmet</td>
<td>0.3% (restricted)*GW</td>
</tr>
</tbody>
</table>

*gw: restricted
FUNGICIDES

- **Bravo – Chlorothalonils** 82%
  - Bravo Ultrex respirator 21c eye
  - Bravo Weatherstik eye for workers
  - Chloronil 720, Initiate 720 eye for workers

- **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% post eye  (restricted use)