

University of Massachusetts Amherst

ScholarWorks@UMass Amherst

Cranberry Station Extension meetings

Cranberry Station Outreach and Public Service
Activities

4-27-2021

2021 Pesticide Safety April 27: MDAR, WPS, and Safety Review

Martha Sylvia

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Part of the [Agriculture Commons](#)

MDAR, WPS, and Safety Review

UMass Cranberry Station

Marty Sylvia

4/27/2021



UMass
Extension



MDAR Pesticide Program

*EVERYTHING is
online NOW*

Gone remote for everything

- Pesticide subcommittee meets on zoom
- Kerb submitted as Sect 18 online
- Neonic public review online
- Pesticide License renewal online
- Credit audits online
- Pesticide Exams online
- All trainings and recertification workshops are online



Mass.gov State Offices & Courts | State A-Z Topics | State Forms | Accessibility FAQs

An Official website of the Commonwealth of Massachusetts

EEA ePLACE Portal

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Need Help? For technical assistance in using this web application, please call the ePLACE Help Desk Team at (844) 733-7522 or (844) 73-ePLAC between the hours of 7:30 AM-5:00 PM Monday-Friday, with the exception of all Commonwealth and Federally observed holidays. If you prefer, you can also e-mail us at ePLACE_helpdesk@state.ma.us. For assistance with non-technical questions, please contact the issuing Agency directly using the links below.

Contact:

- Energy and Environmental Affairs, MASSDEP
- Energy and Environmental Affairs, MDAR
- Energy and Environmental Affairs, DCR

MDAR site!!

<https://www.youtube.com/watch?v=JNucTaCC6PQ>

Pesticide License/Certification

- All pesticide certification info comes through your email now
- Your actual pesticide license/certification comes as an attachment in your email (message subject is EIPAS)
- All recertification certificates (credits) are now submitted through the EEA ePLACE Portal
- IF you do not have your physical certification now, let me know, I can work with MDAR to help fix

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



Department of Agricultural Resources

251 Causeway Street, Suite 500, Boston, MA 02114
617-626-1700 fax: 617-626-1850 www.mass.gov/agr



2 page attachment when you renewed your license in Oct/Nov/Dec, license and info about when you recertify

THE COMMONWEALTH OF MASSACHUSETTS

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Department of Agricultural Resources

251 Causeway Street, Suite 500, Boston, MA 02114
617-626-1700 fax: 617-626-1850 www.mass.gov/agr



October 15, 2020

MARTHA SYLVIA

400 VINTAGE DRIVE, SUITE 500
WALTON, MA 01971

Dear MARTHA SYLVIA,

The Department of Agricultural Resources, Pesticide Program has reviewed your application for the **Commercial Certification**. The Department is pleased to inform that you have complied with the procedures set forth in State Pesticide Regulations and are qualified for Pesticide Licensure in the Commonwealth. The below credentials must be on your person at all times.

Your Massachusetts Pesticide License Number is **CC-01** and is valid until **12/31/2021**.

If you have any questions, please contact the MDAR - Pesticide Program.

Sincerely,

Steven E. Antunes-Kenyon

Steven Antunes-Kenyon
Pesticide Operations Coordinator
MDAR - Pesticide Program

Directions:

- Sign license document.
- Carefully cut out credential
- Laminate for its protection



Search your email for
EIPAS to find your
license/certification

Recertification / Continuing Education Unit (CEU) Requirements

1 Contact (credit) Hour = 50 Minutes Training

Category Code	Recertification Date	# CEU's Required at Recertification Date	Credits Accepted by MDAR	Category Status
49	07/01/2021	12	12	Active

General Requirements and Policy Regarding Number Of Permitted Online / Computer Based CEU's

Credential Type	Required # of CEU's	# of CEU's Permitted for Online / Computer Based Courses
Commercial Certification	12 per Category	6
Private Applicator	12 per Category	6
Commercial Applicator	6	3
Dealer	3	1.5

Information relative to your 3-year retraining cycles (Recertification) are indicated in the below tables

See website for MDAR Pesticide Applicator Continuing Education (PACE)

<https://www.mass.gov/service-details/pesticide-applicator-continuing-education-pace>

Private Certification, Category 30, Cranberries
Commercial Certification, Category 33, Agriculture

Audits FOR ALL!!

- Sent out ONLY by email now
- Must upload credits before renewing certification at the EEA eplace portal
- Need 12 credits in 3 years
- All growers who 3 year cycle is up this year are audited this year!!
 - 7/1/2017 – 12/31/2020
 - **7/1/2018 - 7/1/2021**
 - 7/1/2019 – 7/1/2022

Search your email for
EIPAS to find your
license/certification

*Audit time NOT
extended this year*

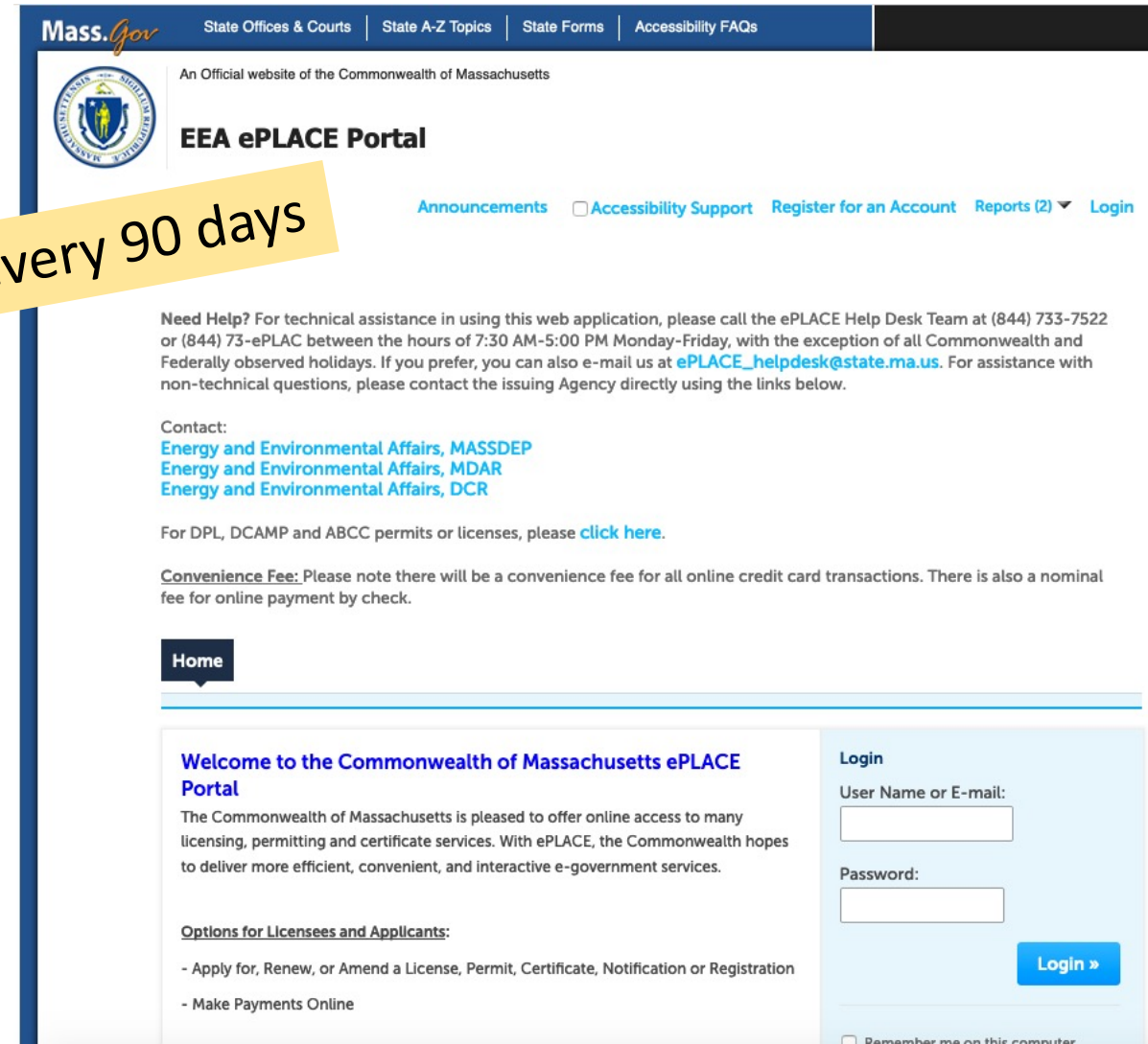
All credits can come from computer-based or online credits or contact hours. Any portion, or all of the needed training credits, can come from online sources

Pesticide Certification Renewal!!

now includes credit audit...

- Username and password
- Security questions
- Contact info
- Renew authorization
- Insurance
- Update credits earned
- Actions/Edit
- Only enter 12 credits
 - (no ½ credits, don't enter more)
- Employer Info
- Upload documents
- Type, description, and add
- Review
- Pay, pay online!!

Password change every 90 days



The screenshot shows the EEA ePLACE Portal on the Mass.gov website. The header includes navigation links for State Offices & Courts, State A-Z Topics, State Forms, and Accessibility FAQs. The main content area features the EEA ePLACE Portal logo and a welcome message. A yellow banner overlay reads "Password change every 90 days". The page includes a "Need Help?" section with contact information for the ePLACE Help Desk Team, a "Contact:" section with links to Energy and Environmental Affairs, MASSDEP, MDAR, and DCR, and a "Convenience Fee" section. The bottom section contains a "Welcome to the Commonwealth of Massachusetts ePLACE Portal" message and a "Login" form with fields for User Name or E-mail and Password, and a "Login »" button.

Mass.gov State Offices & Courts | State A-Z Topics | State Forms | Accessibility FAQs

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EEA ePLACE Portal

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Contact:
[Energy and Environmental Affairs, MASSDEP](#)
[Energy and Environmental Affairs, MDAR](#)
[Energy and Environmental Affairs, DCR](#)

For DPL, DCAMP and ABCC permits or licenses, please [click here](#).

Convenience Fee: Please note there will be a convenience fee for all online credit card transactions. There is also a nominal fee for online payment by check.

Home

Welcome to the Commonwealth of Massachusetts ePLACE Portal

The Commonwealth of Massachusetts is pleased to offer online access to many licensing, permitting and certificate services. With ePLACE, the Commonwealth hopes to deliver more efficient, convenient, and interactive e-government services.

Options for Licensees and Applicants:

- Apply for, Renew, or Amend a License, Permit, Certificate, Notification or Registration
- Make Payments Online

Login

User Name or E-mail:

Password:

[Login »](#)

☐ Remember me on this computer

MDAR Pesticide Program

- This online audit process is a *nightmare!!*
- Upload credits on the EEA ePLACE Portal
- Tricks I've learned
 - **Put all credits into one file**
 - **Save as a pdf**
 - **Name the file with last name (Sylvia12Credits)**
 - Only submit 12 credits
 - Don't submit ½ credits
 - Name file on computer and again on eplace to identify
- For growers coming up for audit this year, we can upload anytime (*under amendment*).
- Credits 7/1/18 thru 7/1/21

Audits submitted electronically

(I can help!)
(I can advise!)
(I can scan credits!)
(I can upload!)
(I can even find old credits if from UMass meetings)

*Don't
give up!*



MORE PESTICIDE CREDITS NEEDED?

If you are audited this year (1/3 of you are),
make sure your 12 credits are in the bag!

- **A few more meetings coming up**

UMASS CRANBERRY STATION BOGSIDES

OceanSpray will hold likely two 1 credit meetings

- Wednesday May 12 12-1 PM

- Wednesday June 9 12-1 PM

- 1 credit meetings coming up

- Online Zoom Meetings, free!

UMASS PESTICIDE EDUCATION PROGRAM

- Online Zoom Meetings, 2 credits, \$40 each (\$30)
- Not cranberry specific, but credit worthy
- All workshops will be from 7:45am-10:15am
- You have to pre-register for each workshop
- Once you register - you receive the link
- Not announced yet, but planned before audits due

*Let me know and
I'll forward you info!*

martys@umass.edu

Pesticide License Recertification and Audit Program

Massachusetts Pesticide License Retraining and Audit Requirements

Steve Antunes-Kenyon

[List of Specific Individuals with Audits Due in 2021](#)

As per State Regulations, 333 CMR 10.08(3)(f) and further outlined below, individuals maintaining a valid Massachusetts Pesticide Credential must complete training and be recertified every three years. The following list includes those individuals whose three-year recertification / retraining cycle ends on 07/01/2021 or before the end of CY 2021.

Please note that notification of these requirements will be sent by email only and posted on the MDAR website. Notifications will NOT be sent via U.S. Mail, as the Department continues its efforts to be more environmentally minded and minimize the volume of records printed, mailed, returned, and stored in hardcopy format.

Please note that the Department is launching a new process for collecting training certificates. These changes will impact everyone maintaining a Massachusetts Pesticide License. Development is now underway to change the EEA ePLACE Portal; such that, your credits will be submitted and uploaded into your EEA ePLACE Portal Account when you renew your Pesticide License.

CONTACT

Hoang Vo

 Phone

617-626-1818

 Online

Hoang.Vo@mass.gov

RELATED

[List of Specific Individuals with Audits Due in 2020 →](#)

[Apply for Pesticide Exam, License and Renewal →](#)

MDAR Pesticide Program

- ONLINE **EXAMS** ONLY
- Cancelled all in person
Pesticide Exams as of Nov 2020
- Only Sign Up for Pesticide
Exams ONLINE thru EEA
ePLACE portal

- Using same core manual and supplement
 - but cranberry manual updated
 - (from 1999 to 2009 material!?)

All Exams and trainings online

Mass.Gov State Offices & Courts | State A-Z Topics | State Forms | Accessibility FAQs

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MASSACHUSETTS PESTICIDE CERTIFICATION MANUAL

PRIVATE APPLICATOR SPECIALTY: CRANBERRIES

CATEGORY NO. 30

REVISED NOVEMBER 2009

MANUAL COMPILED AND EDITED BY M.M. SYLVIA AND H.A. SANDLER.
CONTRIBUTIONS BY A.L. AVERILL, F.L. CARUSO, C.J. DEMORANVILLE, AND H.A. SANDLER.
UMASS CRANBERRY STATION, EAST WAREHAM, MA.



There is also a nominal

or E-mail:

[Login »](#)

on this computer

MDAR Pesticide Program

All Exams and trainings online

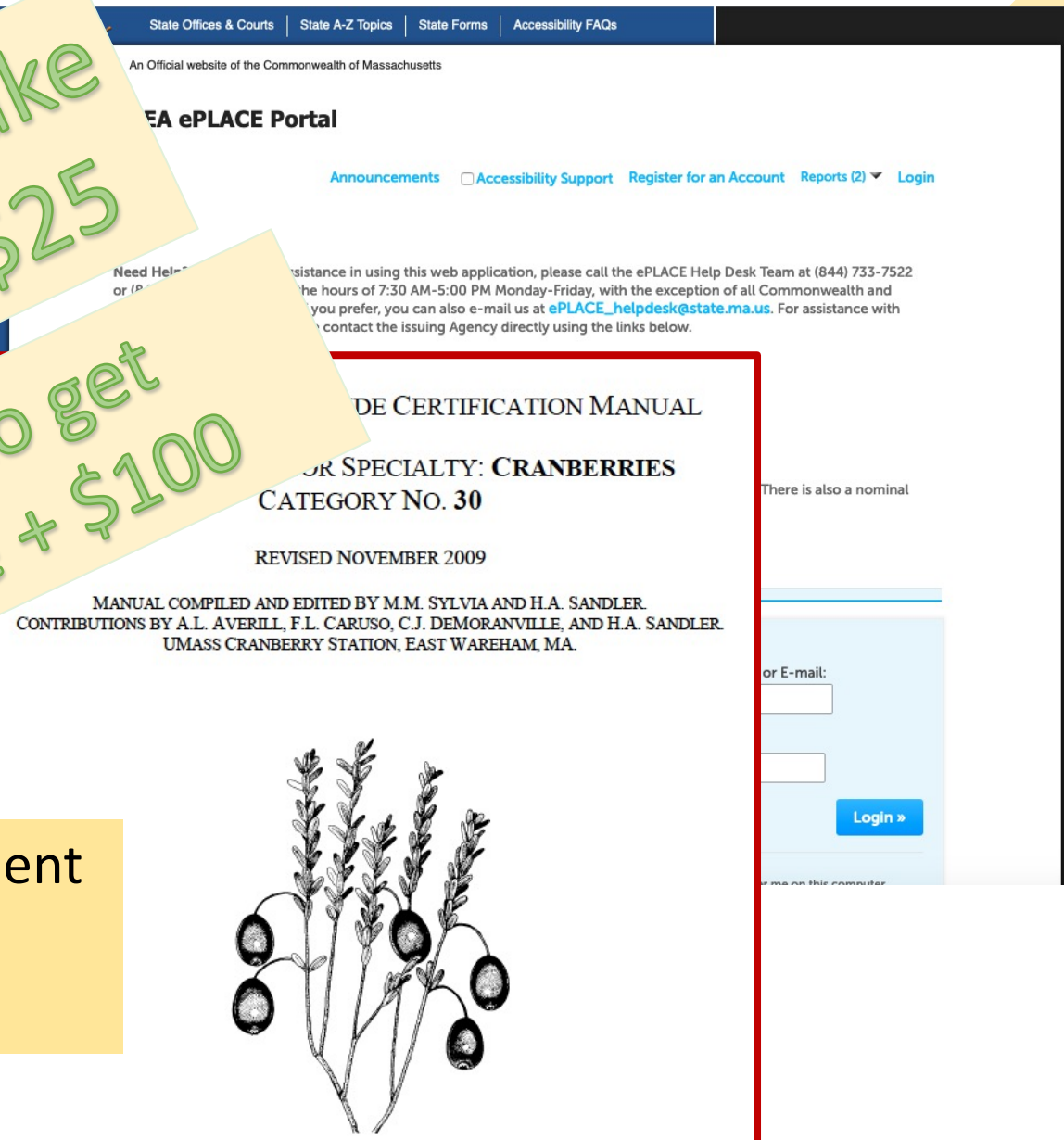
- ONLINE **EXAMS** ONLY

- Only Sign Up for Pesticide Exams ONLINE thru EEA ePLACE portal
- Can only take exam online
 - On a computer, anytime
 - Prove you are alone
 - No open book, eye contact

COST to take
\$125 + \$25

COST to get
license + \$100

- Using same core manual and supplement
 - but cranberry manual updated
 - (from 1999 to 2009 material!?)



WPS Worker Protection Standard

Required annual training

any workers, weeders,
scouts, and mechanics

Anyone on bog within 30
days of an applied spray

If at harvest, no sprays
for 30 days then WPS
training not required



SMALL GROUP



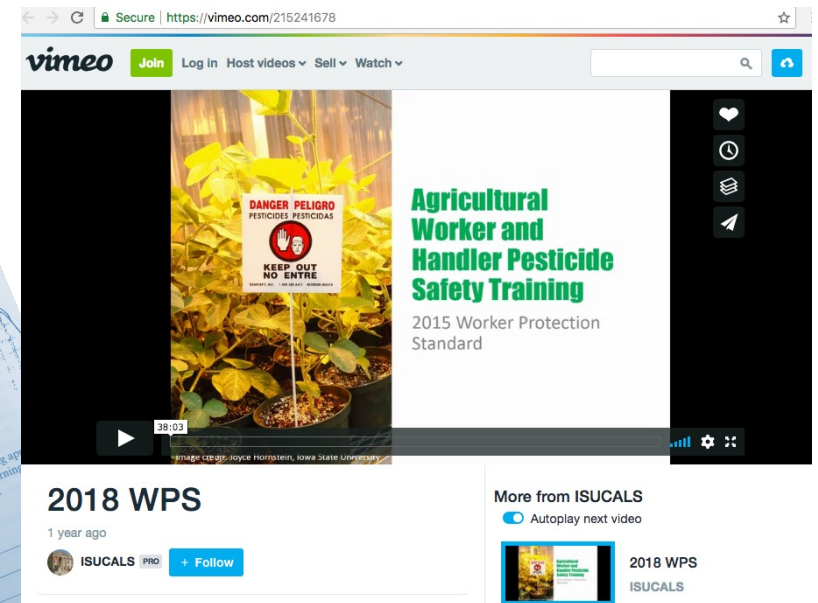
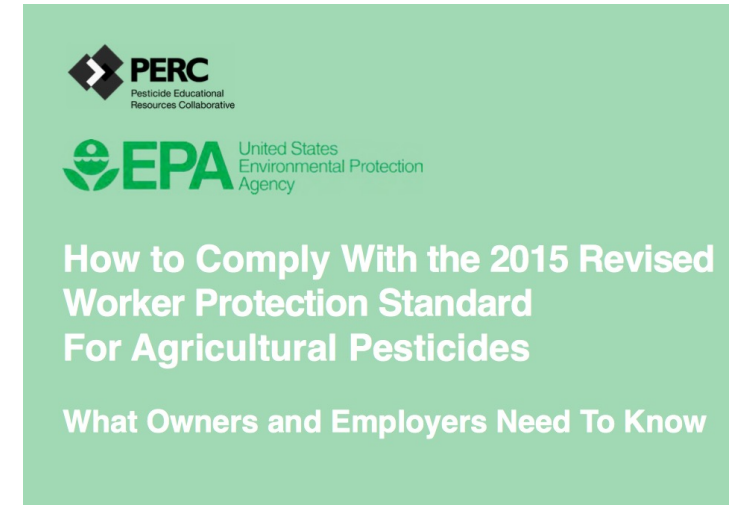
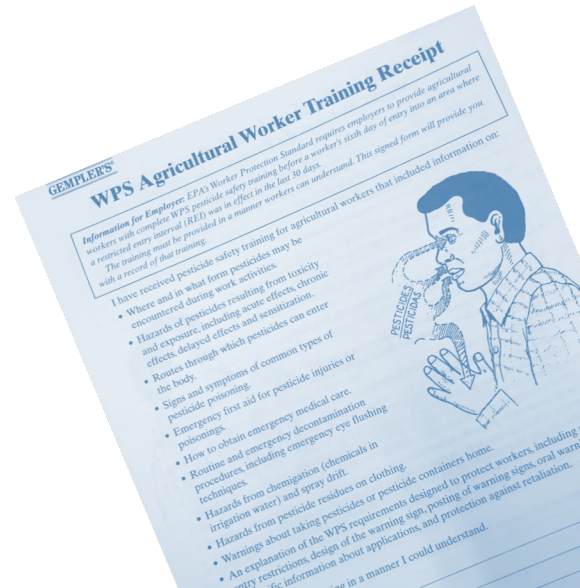
USE ZOOM OR VIDEO

You Can Do It!! WPS Training!!

DIY!!

- **Private Certification License**
- Use existing training materials (PPT/Video)
- Keep a record of the training:
 - Individual name & signature
 - Trainer name & qualification
 - Date of training
 - Employer Name
 - How training was given

***YOU can play the Vimeo or youtube Video for workers!!
And familiarize workers with
your particular setup!!***



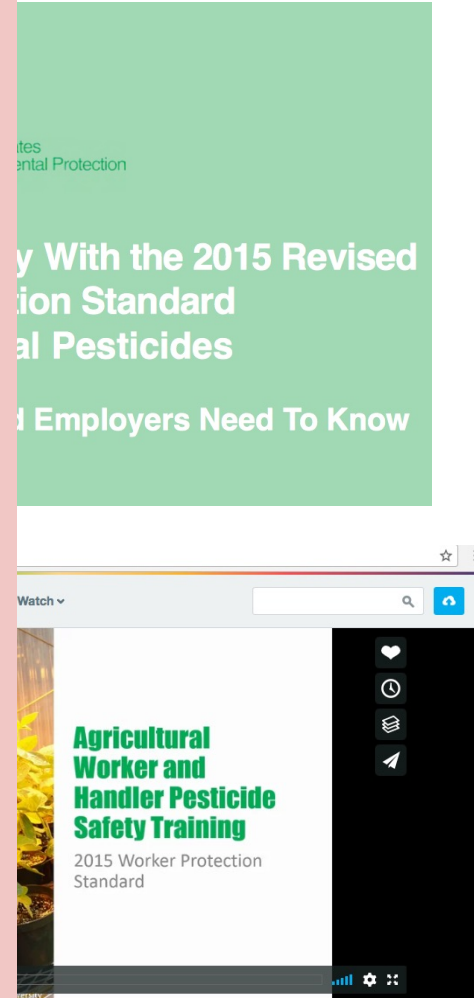
You Can Do It!! WPS Training!!

DIY!!

- **Private**
- Use
- Keep
 - Individual
 - Training
 - Dates
 - Employers
 - How
- I know this is overwhelming!!
- I can set up a zoom time to “read” the presentation to your workers
- Takes about an hour but you need to have them around a computer (or phone in worst case scenario)
- I can send you the “link” for video but you need wifi and you run it

***YOU can
youtube
And fam***

your particular setup!!



2018 WPS

1 year ago



ISUCALS

+ Follow

More from ISUCALS

Autoplay next video



2018 WPS
ISUCALS

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
- Company should implement and enforce a COVID program

Decontamination supplies



Do you have workers who should do WPS training?

- Yes, done!
- Yes, working on it
- Yes, but too hard to do
- No workers

Have you ever done the WPS training for your workers yourself?

- Yes
- No
- No workers

*POLLING
WPS*

Bogs With IWPA & Zone II



Zone II Groundwater Protection

"no viable alternative"

- Maps Online, nothing much has changed
- Station can write letter for approval if you have a good case for usage
- Actara and Zeus, no other options for control so can apply (with chart book permission)
- But if you are in Zone II you must report when you apply

Dinotefuran

~~Scorpion~~

Chlorothalonil

Bravo, Echo

Methoxyfenozide

Intrepid, Invertid

Pronamide

Kerb

Thiamethoxam

Actara

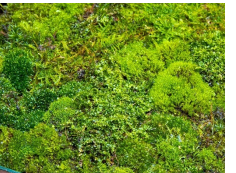


Simazine

~~Simazine~~

Sulfentrazone

Zeus



Groundwater Protection Program Notification Form

You must notify us when you apply a pesticide product which is listed on the groundwater protection list. Notifications must be made within ten days of the end of the calendar month. Please submit one form per site.

CONTACT

Hotze Wijnja

Phone 617-626-1771

Online Hotze.Wijnja@mass.gov

Fields marked with an * are required.

Name*

First Name Last Name

PESTICIDE LICENSE NUMBER*

GROUP 4A INSECTICIDE



syngenta®

Insecticide

For control of certain insect pests infesting listed crops

Active Ingredient:

Thiamethoxam¹ 25.0

Other Ingredients: 75.0

Total: 100.0

¹CAS No. 153719-23-4

Actara is a water-dispersible granule.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-938 EPA Est. 67545-AZ-1

Product of India

Formulated in the USA

SCP 938A-L2M 1213
4033546

**7 pounds,
8 ounces (1200 g)**
Net Weight

Use Restrictions:

- **Maximum Actara Allowed per Growing Season:** Do not exceed a total of 12.0 oz/Acre (0.188 lb ai/A) of Actara or 0.188 lb ai of thiamethoxam containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply the higher rate within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 30 days
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications. Actara may be applied through a solid set sprinkler irrigation system at 200-650 gal total volume /A, and if applied during a regular irrigation set, only at the end of the irrigation set. For best results, it is recommended that 200-300 gal total volume /A be used for irrigation application.
- **Do not** apply by air.
- **Do not** apply to flow-through bogs.
- **Do not** apply within 25 feet of bodies of water.
- **Do not** irrigate for the first 48 hours following application.
- **Do not** release water immediately following application; hold water within the bog system for 5 days following application prior to release.



Refer to Pollinator Precautions section.

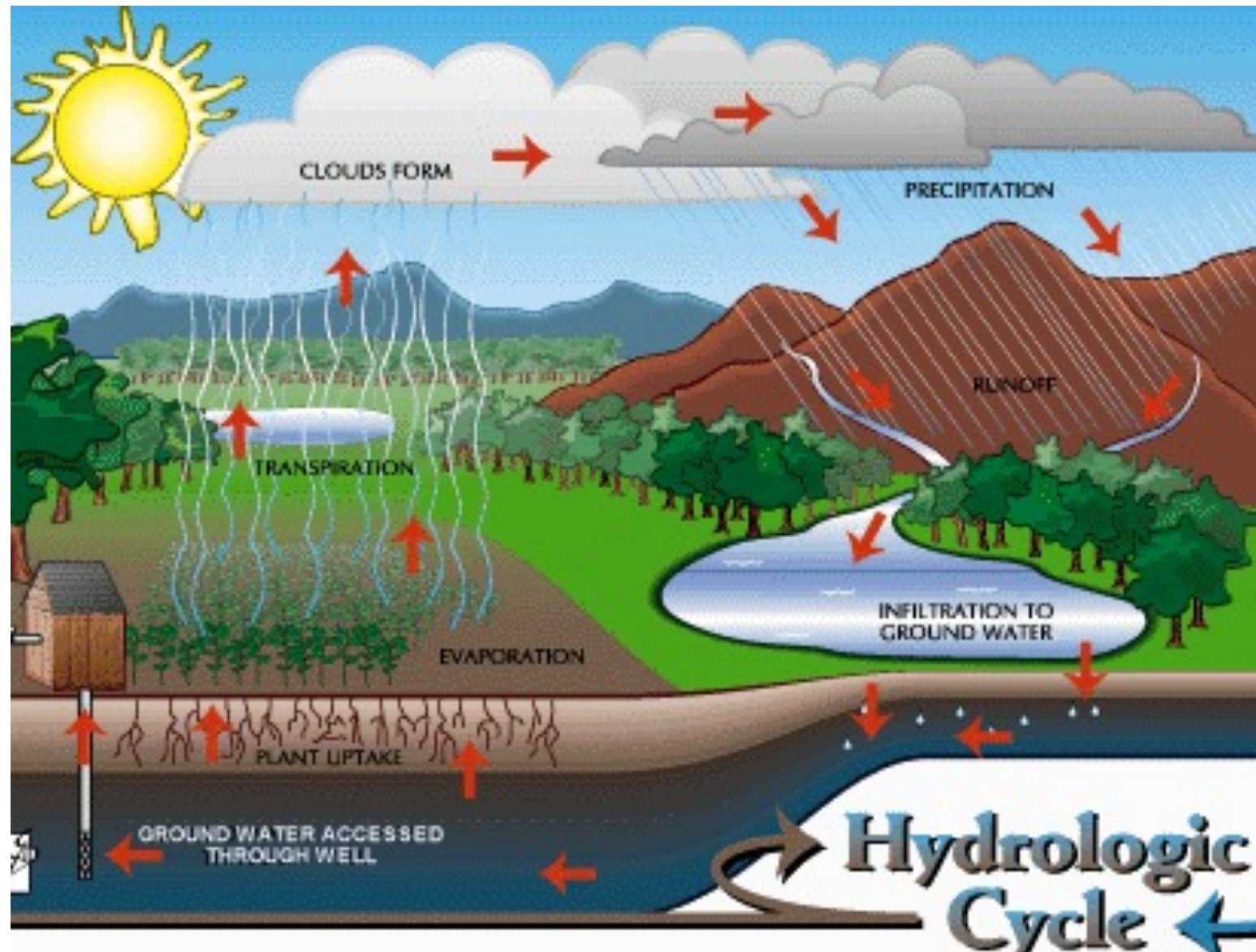
Refer to Resistance Management section.

State Restricted Use because

- Zone II Restricted
- On Groundwater Protection List
- Other Restrictions...
- Allowed to use, but must follow rules and if in zone II report usage!!

ZONE II UPDATE

- Actara
- Bravo
- Intrepid
- Kerb
- Scorpion
- Simazine
- Zeus
- Chart book
- letter
- letter
- letter
- NO
- NO
- Chart book



Source: United States Environmental Protection Agency

Zone II Groundwater Protection

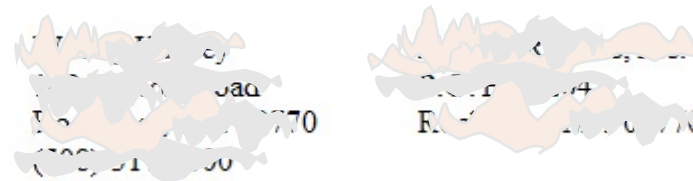
- Actara • ^{letter} Chart book
- Bravo • letter
- Intrepid • letter
- Kerb • letter
- Scorpion • NO
- Simazine • NO
- Zeus • ^{letter} Chart book



Cranberry Research & Outreach
An Affiliate of the UMass Amherst
Center for Agriculture, Food and the Environment

One State Bog Road, P.O. Box 569 • East Wareham, MA 02538-0569 • p: 508.295.2212 • f: 508.295.6387 • umass.edu/cranberry

April 16, 2021



Re: Memo to justify 'no viable alternative' position for locations in Zone II
Actara (thiamethoxam) for cranberry weevil management at [redacted] Rochester,
MA 02110, 11.2 A [redacted] (A Stevens)
property entrance is 41 [redacted] 742, [redacted] 6388 - see attached map below.

Dear [redacted],
This letter to confirm we have reviewed your site and allow you to use the insecticide Actara (thiamethoxam) on the acreage this spring for weevil management. You are allowed to use Actara for weevil in your Zone II bogs because Avaunt (indoxacarb) is no longer showing efficacy and Belay (clothianidin) has had the cranberry label cancelled by the registrant (Valent) and old stock is no longer available through our cranberry Ag dealers. I understand that you have been battling weevil for years on your acreage in Rochester. I know that your company is diligent about IPM, sweeping and trying to manage spring population of weevil with Avaunt when numbers are reported over threshold. However, weevils collected from multiple sites in southeastern MA have been tested in the last 2 years in the lab and shown to have resistance to Avaunt. Even with high rates, there is

Zone II Groundwater Protection

- Actara • ^{letter} Chart book
- Bravo • letter
- Intrepid • letter
- Kerb • letter
- Scorpion • NO
- Simazine • NO
- Zeus • ^{letter} Chart book

But no matter what, if you apply in Zone II, you must report it to MDAR

Groundwater Protection Program Notification Form

You must notify us when you apply a pesticide product which is listed on the groundwater protection list. Notifications must be made within ten days of the end of the calendar month. Please submit one form per site.

Fields marked with an * are required.

Name *

First Name

Last Name

PESTICIDE LICENSE NUMBER *

CONTACT

Hotze Wijnja

 Phone

617-626-1771

 Online

Hotze.Wijnja@mass.gov

OFFERED BY [Massachusetts Department of Agricultural Resources](#)

Pesticide Storage and Disposal

Proper storage and disposal of unused or waste pesticide products in order to protect human health and the environment.

The characteristics of pesticides require proper storage and, if needed, proper disposal of unused or waste pesticide products in order to protect human health and the environment. The storage of pesticides is regulated under the [Federal Insecticide, Fungicide, and Rodenticide Act \(FIFRA\)](#), which governs the sale, distribution and use of pesticides in the U.S. Pesticides are regulated under FIFRA until they are disposed, after which they are regulated under the [Resource Conservation and Recovery Act \(RCRA\)](#) which ensures responsible management of hazardous and nonhazardous waste. Some, but not all, pesticides are regulated as hazardous waste when disposed. The Department of Transportation (DOT) regulates the transport of hazardous materials. Some, but not all, pesticides are regulated as DOT hazardous materials while in commerce. The Department has developed several guidance documents on storage, mixing and loading documents. The Department of Environmental Protection (MassDEP)

CONTACT

Hotze Wijnja **Phone**

617-626-1771

 **Online**Hotze.Wijnja@mass.gov

Haz Waste Clean ups?? Pay-for



- **Kevin Poulin**, Senior Field Services Manager
Triumvirate Environmental
P: 617-715-8925 | M: 978-857-6174
kpoulin@triumvirate.com | www.triumvirate.com
- **David Batogowski**, Technical Services Account Manager
Clean Harbors
- 1 Hill Avenue, Braintree, MA 02184
(c) 339.788.0759
Batogowskid@cleanharbors.com
www.cleanharbors.com



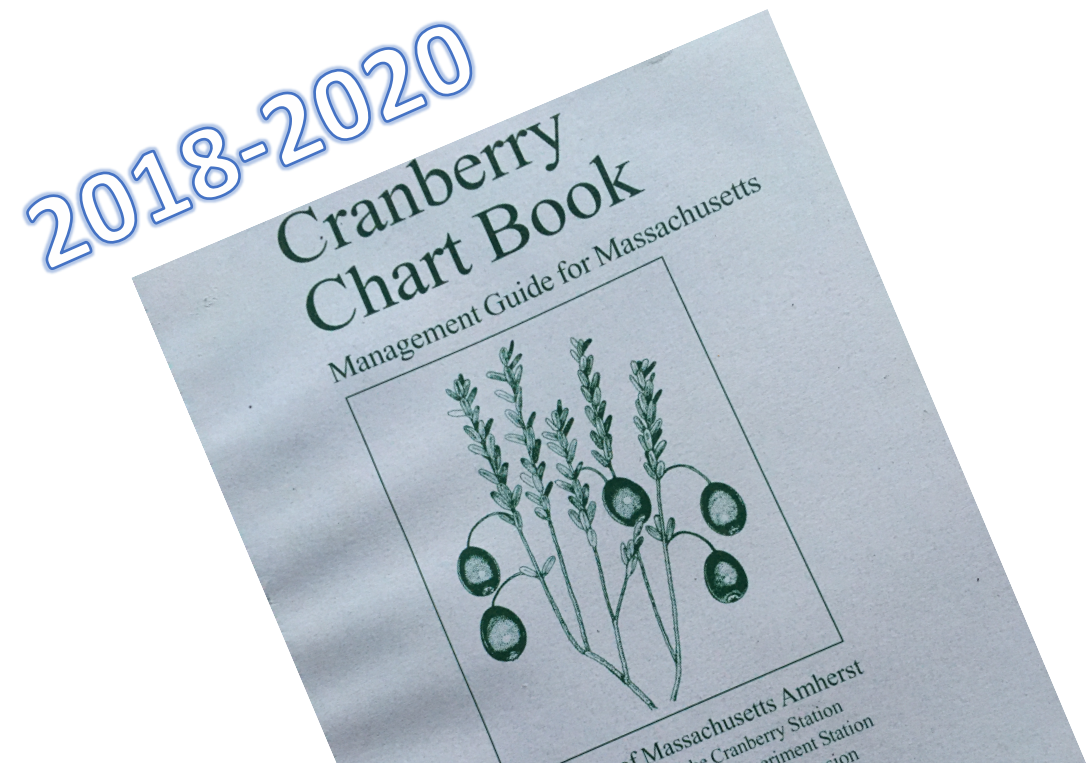
Pesticide Update, New Pesticides
Reports, Chart, Restrictions

Cranberry Chart Book 2021-2023

- IT IS OUT!!
- Did you get yours?
- If NOT, get ahold of me or Robyn
- Add Quadris Top
- Add more info on Intensity
- Add Zeus
- Add Exirel
- Not including registered but not recommended compounds
 - Verdepryn
 - Danitol
 - Closer
 - Rimon
 - Cormoran
 - Venom, Scorpion

Labelled but issues with...

- Handler restricted
- MRL issue
- No chemigation
- No fit for management
- No efficacy



CRANBERRY CHART BOOK 2021-2023 MANAGEMENT GUIDE FOR MASSACHUSETTS

University of Massachusetts Amherst, Cranberry Station
P. O. Box 569, East Wareham, MA 02538
(508) 295-2212 FAX (508) 295-6387

<http://www.ag.umass.edu/cranberry>

Contents	
Cautions.....	2
Warnings.....	5
Resistance Management.....	8
Martha M. Sylvia and Katherine M. Gbantous	
Disease Management.....	12
Martha M. Sylvia, Erika Saalau Rojas, and Frank Caruso	
Insect Management.....	21
Anne L. Averill and Martha M. Sylvia	
Weed Management.....	36
Hilary A. Sandler and Katherine M. Gbantous	
Nutrition Management.....	63
Carolyn J. DeMoranville and Katherine M. Gbantous	
Irrigation Water Management.....	78
Peter J. Janssen	

What is new?

HERBICIDES

- Callisto
- Kerb
- Zeus
- ~~Intensity~~
Intensity One



ZEUS[®]
XC
HERBICIDE

INSECTICIDES

- Altacor
- Exirel
- Verdepryn
- Danitol
- Scale
- Case Bearer

No chemigation
on label this year!



FUNGICIDES

- Quadris Top
- Proline

Due to EU MRL's

- Less of Bravo
- Less of Manzate



What' new

- Verdepryn?? Similar to Altacor, but \$\$ and bee tox
- Movento - Bayer
 - no chemigation, after bloom for tipworm, \$\$75/A
 - Going to try for efficacy on scale
- Senstar ?? Valent
 - Movento chemistry (SPIROTETRAMAT) with Esteem chemistry (PYRIPROXYFEN)
 - Too new, likely restricted by handlers
 - Big \$\$, no chemigation
 - after bloom for tipworm
 - Going to try for efficacy on scale

Group 28 Diamide Insecticide

DuPont™ Exirel®

INSECT CONTROL
WITH THE ACTIVE INGREDIENT CYAZYPYR®

GROUP

28



Grapes, Berries & Small Fruit

**A broad-spectrum diamide
insecticide offering an unmatched
range of performance benefits**



Registered Crops

Grapes
Berries & Small Fruit
Pome Fruit
Stone Fruit
Citrus
Tree Nuts

For a complete list of labeled grape and
berry pests and a summary of use instruc-
tions, please refer to the back of this sheet.

Active Ingredient: CYCLAPRYN®

IRAC Group: 28

Restricted Entry Interval (REI): 4 hours

Pre-harvest Interval (PHI):
(varies by crop)

Labeled Name

- Altacor
- Exirel
- Verdepryn

- Rynaxypyr
- Cyazypyr
- Cyclapryn

Active Ingredient

- Chlorantraniliprole
- Cyantraniliprole
- Cyclaniliprole

- *Long residual*
- *Low rates*
- *OK for beneficials*

- *Cranberry on all 3 labels*
- *Chemigation on all 3 labels*

- FMC (Dupont)
- FMC (Dupont)
- Summit Agro (Helena)

**Check with Handler if
Residue Allowed!!**

Group 28 Diamide Insecticide

DuPont™ Exirel®
INSECT CONTROL
WITH THE ACTIVE INGREDIENT CYAZYPYR®

GROUP 28



Grapes, Berries & Small Fruit

**A broad-spectrum diamide
insecticide offering an unmatched
range of performance benefits**



Registered Crops

Grapes
Berries & Small Fruit
Pome Fruit
Stone Fruit
Citrus
Tree Nuts

For a complete list of labeled grape and berry pests and a summary of use instructions, please refer to the back of this sheet.

Active Ingredient: CYCLAPRYN®

IRAC Group: 28

Restricted Entry Interval (REI): 4 hours

Pre-harvest Interval (PHI):

Labeled Name

- Altacor \$45/A
- ~~Exirel \$70/A~~
- ~~Verdepryn~~

- Rynaxypyr
- Cyazypyr
- Cyclapryn


Active Ingredient

- Chlorantraniliprole
- ~~Cyantraniliprole~~
- ~~Cyclaniliprole~~

- FMC (Dupont)
- FMC (Dupont)
- Summit Agro (Helen)

- Long residual
- Low rates
- OK for beneficial

**NEWER COMPOUNDS HAVE BAD BEE TOXICITY
(Altacor does not have bee tox)**

Honeybee Oral LD50 -- under 2 ug/bee is highly toxic , Lethal dose to kill 50%			
	imidacloprid	Admire	0.004 µg
	thiamethoxam	Actara	0.005 µg
	pyridaben	Nexter	0.024 µg
	spinetoram	Delegate	0.024 µg
	spinosad	SpinTor/Entrust	0.025 µg
	chlorpyrifos	Lorsban	0.11 µg
	indoxacarb	Avaunt	0.18 µg
	cyclaniliprole	Verdepryn	0.194 µg
	diazinon	Diazinon	0.37 µg
	cyantraniliprole	Exirel	>0.54 µg
	phosmet	Imidan	1.13 µg
	acephate	Orthene	1.2 µg
	carbaryl	Sevin	1.5-26.5 µg
	acetamiprid	Assail	7.1-10.21 µg
	methoxyfenozide	Intrepid	>100 µg
	chlorantraniliprole	Altacor	114 µg
	tebufenozide	Confirm	>234 µg

super
toxic

highly
toxic

"practically
non-toxic"

Group 28 Diamide Insecticide

DuPont™ Exirel®
INSECT CONTROL
WITH THE ACTIVE INGREDIENT CYAZYPYR®

Labeled Name

• Altacor \$45/A • Rynaxypyr

• Exirel \$70/A • Cy

• Verdepryn \$??/A • Cy

- Long residual
- Low rates
- OK for beneficials

Active

• Chlor

Do not apply this product or allow it to drift to blooming crops or weeds while bees or other pollinating insects are foraging in the treatment area.

Restricted for use by OS if export

PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.



Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen resulting from foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants in and around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: <http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>.

Foliar application of this product is prohibited from onset of flowering until flowering is complete unless: you use the low rate and put on between 6 and 9 PM.

Labeled Crops

es
es & Small Fruit
e Fruit
e Fruit
s
Nuts

complete list of labeled grape and
ests and a summary of use instruc-
please refer to the back of this sheet.

Ingredient: CYCLAPRYN®

: 4 hours

OS Restrictions, Lassonde Restrictions, Mariani Restriction, Decas (Fruit D'Or) Restrictions

- Chlorothalonil (Bravo) - July 25 (Lassonde, Decas)
 - Allowed until bud elongation (UD) - OS EXP
- Manzate, Dithane - no restriction (Lassonde, Decas)
 - Allowed until 50% OOB or July 15th - OS EXP
- Actara - 45 day PHI (OS EXP) Aug 1 (Lassonde)
- Sevin, Carbaryl - 75 day PHI (OS EXP)
July 25 (Lassonde)
- Venom, Scorpion - 30 day PHI (OS Exp, Mariani, Decas)
No Use (Lassonde)
- Kerb – No Use - OS EXP or Lassonde or Mariani

Check your handler
restrictions before
you apply

Restrictions for
a reason

Reason is
usually residues
(or lack of experience with the residues)

Export Qualified Fruit – Processed & Fresh		
Compound	Trade Name	Restriction
mancozeb	MANEB/MANZATE /DITHANE	85d PHI and No use allowed after July 15 th or 50% Out- of-Bloom, whichever comes first

Fungicides					
Active Ingredient	Most Common Trade Name	Use Allowed	PHI	Testing Required	Last Allowed Date
Azoxystrobin	Abound	Y	3		
Chlorothalonil	Bravo	Y			25-Jul
Difenoconazole	Quadris Top	Y			30-June
EBDC's	Dithane/ Mancozeb	Y			

For Upright Dieback

- Choices are Bravo or Champ
 - Bravo Weatherstik @ \$30/A
- Champ Formula 2 @ \$27/A

For Phytophthora

- Choices are FIX YOUR DRAINAGE
- Choices are Ridomil or Phosphonates
 - Ridomil SL @ \$160/A
- Phiticide @\$12/A, Rampart @ \$20/A

Weeds

- Intensity One @ \$10/A - 16 oz
- Callisto @ \$17/A - 8 oz
- Zeus @ \$19/A - 12 oz
- Devrinol @ \$250/A - 18 lb or qts
- Casoron @\$375/A - 100 lb

1	Callisto	60%
2	Intensity	30%
3	Devrinol	10%
4	Casoron	<5%

2018
independent
grower
usage

Polling questions!!

Does price impact your decision to use a pesticide?

- No, I use what works
- No, I just buy what I need
- Yes, I compare prices
- Yes, I can't afford most
- Not applicable to me

Do you need respirator training?

- Yes
- No, done already
- No, not necessary
- Ignoring
- Not applicable to me

WPS Changes

- Expanded Sign posting
- Posting required outdoors if REI > 48 hours or more
- Sign prohibits entry until residues decline

Diazinon, all

**Badge, Champ, Kocide
Nu-Cop (most coppers)**

**Ridomil, Ultra Flourish
Metastar - mefenoxams**

Weedar 64, 2-4 D



DANGER **PELIGRO**
PESTICIDES **PESTICIDAS**



KEEP OUT
NO ENTRE

Posting is only necessary for compounds that are classified as Danger or have over a 48 hour REI

- Bravo Ultrex
- Echo 90DF
- Diaz 50W
- Diaz AG500
- Diaz AG600
- Imidan 70-W
- Weedar 64, 2-4 D
- Badge
- Champ WG
- Kocide 2000
- ManKocide
- Nu-Cop 3L
- Nu-Cop 50DF
- Nu-Cop HB
- Ridomil, Ultra Flourish
- Metastar - mefenoxams



Since 2018

Applicator Exclusion Zone (AEZ)

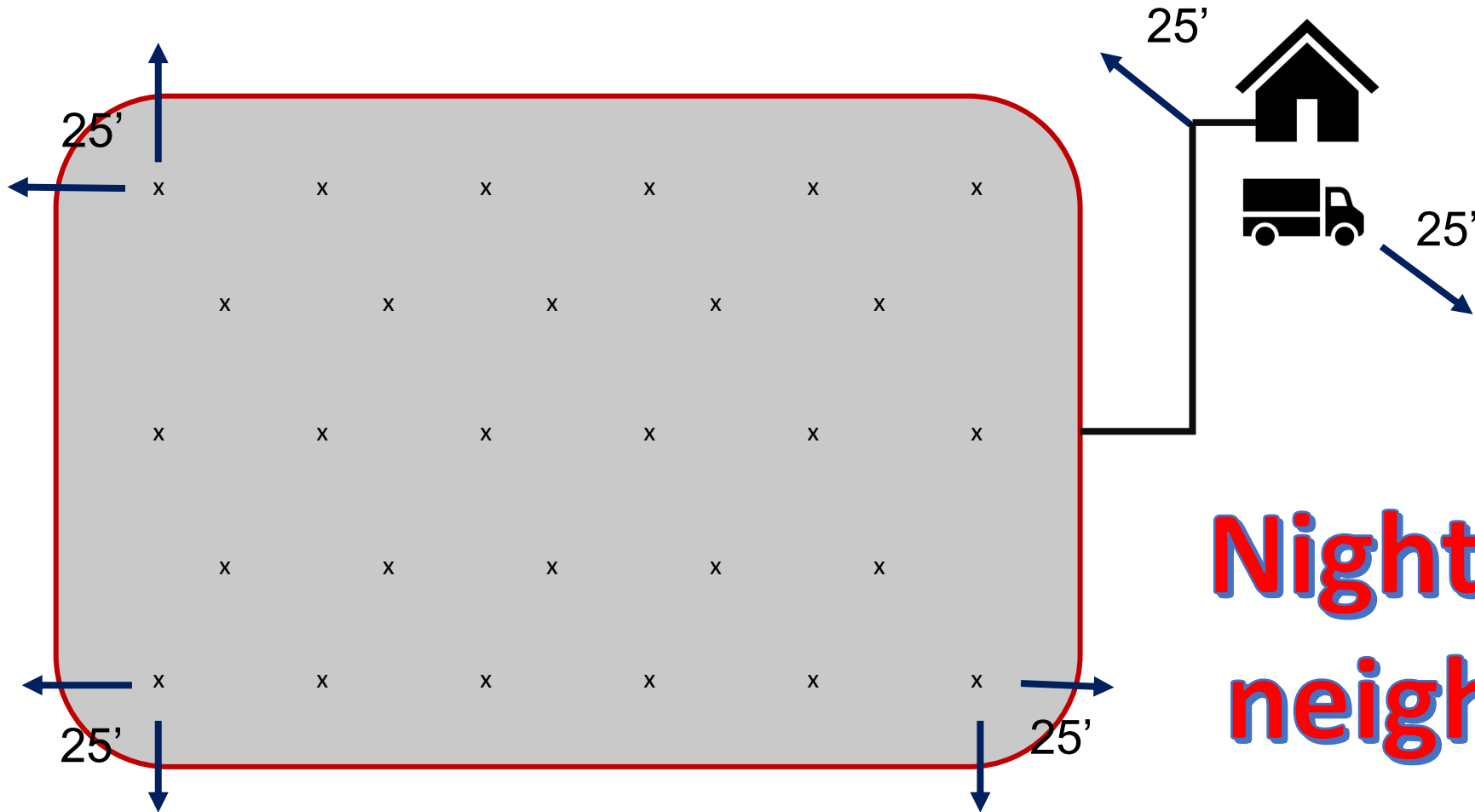
- No one in area when applying pesticide the application should stop!
- ~~100 feet from equipment if small particle size (<294 microns)~~
- 25 feet from equipment absolutely **from all sprinkler heads**
- To protect workers and others from exposure to pesticide overspray

Sprinkler
particle
size are
800
microns or
higher

The term used in the WPS rule that refers to the area surrounding the pesticide **application** equipment that must be free of all persons other than appropriately trained and equipped handlers during pesticide **applications**.

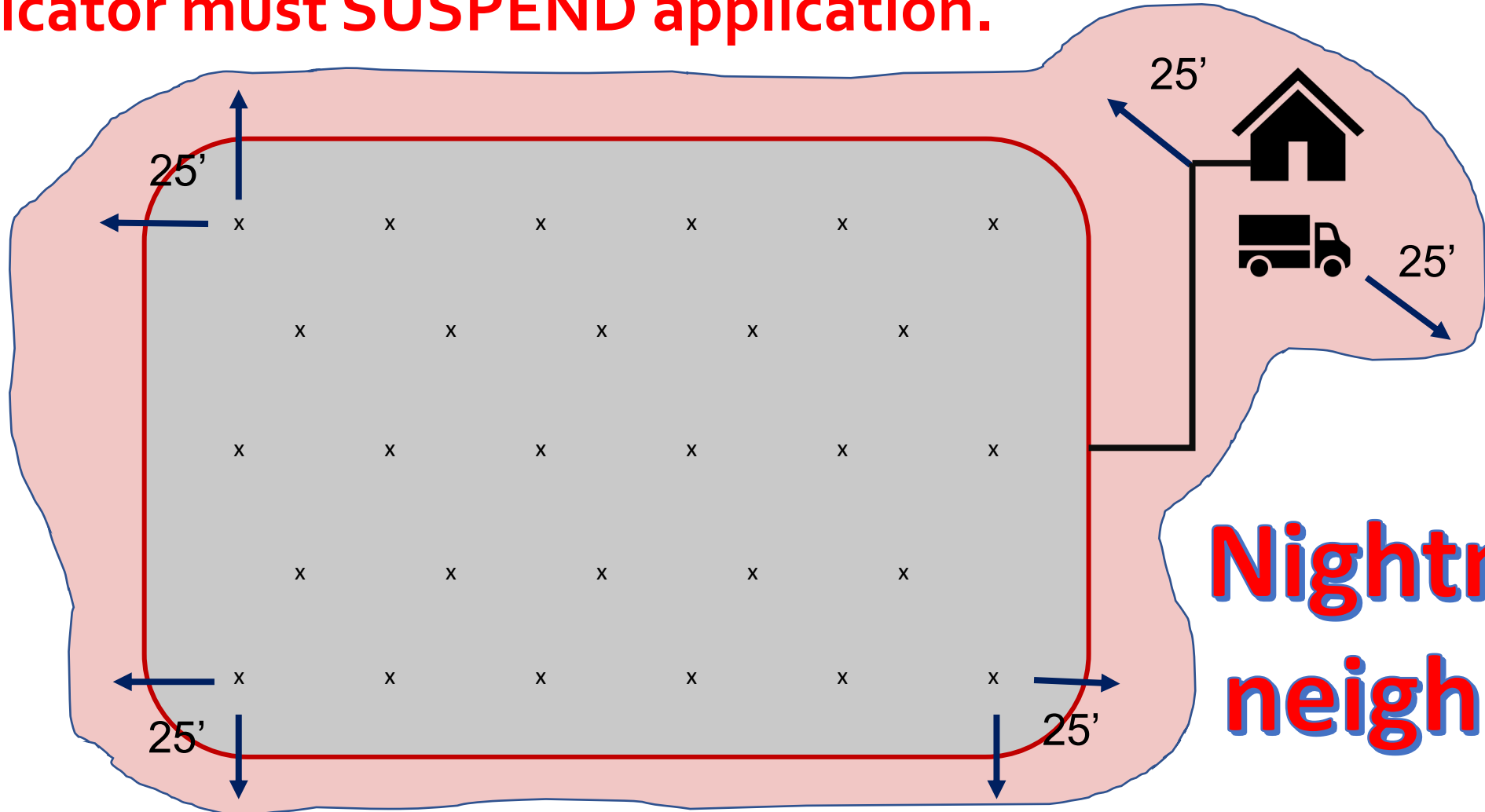
Application Exclusion Zone

If applicator sees someone within the AEZ,
applicator must **SUSPEND** application.



Application Exclusion Zone

If applicator sees someone within the AEZ,
applicator must **SUSPEND** application.



PPE Personal Protective Equipment

best way to reduce exposure and reduce your risk!



Gloves

Respirator

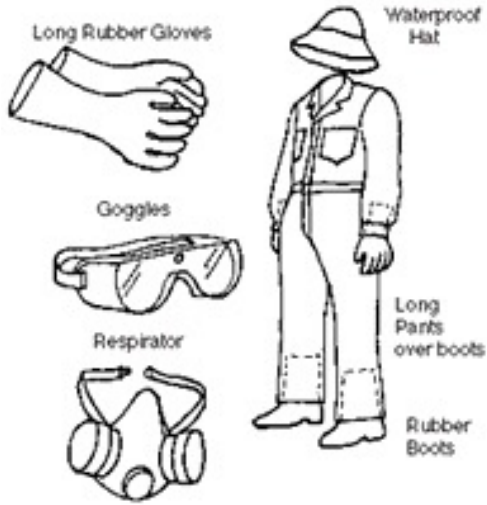
Tyvek
suit

Safety
glasses

Boots

PPE: Personal Protective Equipment

- ▶ Coveralls
- ▶ Gloves
- ▶ BOOTS
- ▶ Eyewear
- ▶ Respirator
- ▶ Apron
- ▶ Hat
- ▶ still the best way to reduce exposure and reduce your risk!



Altacor
Avaunt
Actara
Delegate
Intrepid
Badge
Bravo Weatherstik
QuadrisTop
Indar
Phiticide, Rampart
Callisto, Explorer, Sotrion
Devrinol
Roundup



When handling
any pesticides
at the very least...

- long-sleeved shirt
- long pants
- shoes and socks
(boots are wiser)
- gloves



PPE shortage as a result of the COVID-19 pandemic

- You need to make having PPE supplies a priority



Relatively Safe

- Altacor
- Avaunt
- Actara
- Delegate
- Manzate
- Indar
- Abound
- Proline
- QuadrisTop
- Devrinol
- Casoron
- Callisto, Sotrion
- Zeus

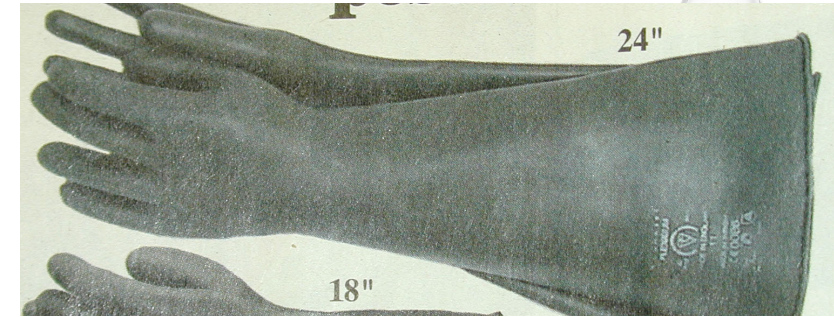
Be more careful

- Sevin
- Diazinon
- Bravo
- Badge, Champ
- Phiticide
- Intensity
- Weedar 64

GLOVES, GLOVES, GLOVES

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
- Most pesticides calls for gloves!!
- Many specify >14 mil thickness!!



Natural or butyl rubber

4 mil – very thin



Disposable Nitrile gloves



17 mil –
thicker



Thickest Nitrile
47 mil



Neoprene



Barrier laminate

\$0.10 cents
\$1.00 each
\$9-10.00 each

EYEWEAR

- If protective eyewear is required by the labeling, the employer must provide water for emergency eye flushing for handlers at pesticide mixing/loading sites
 - Specific amounts of water to be used for routine washing, emergency eye flushing and other decontamination, including eye wash systems for handlers at pesticide mixing/loading sites



- **Provide water for decontamination**
 - Required 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

Penncozeb 75DF but not Manzates or Dithanes

Pyramite/Nexter – Pyridaben

2,4-D granular, Weedar 64

Rimon – Novaluron but not Cormoron

Diazinon AG500 + AG600 but not 50W

Bravo – Chlorothalonils

Bravo Ultrex, Echo 720, Equus 720,

Chloronil 720, Initiate 720 but not Bravo Weatherstik

Champ and Badge formulations but not Kocide 3000

Chlorpyrifos 4E-AG but not Lorsban Advanced

Intensity and Intensity One

Phostrol, Rampart (but not Phiticide!)

PPE for sprays you do!!

- Intensity
- Intensity ONE

- Long-sleeved shirt and pants
- Shoes and socks
- Chemical resistant gloves
- **Protective eyewear**
 - Goggles, face shield or safety glasses

- Phostrol,
Rampart
(but not
Phiticide)

- Long-sleeved shirt and pants
- Shoes and socks
- Chemical resistant gloves
- **Protective eyewear**

CHEMICAL RESISTANT FOOTWEAR

- SHOES

- SNEAKERS
- LEATHER
- CANVAS
- FABRIC
- SANDALS



VINYL
BOOTS



PVC BOOTS



Chemical Resistant Shoes
Chemical Resistant Boots
Chemical Resistant
Shoe Covering

Look at what compounds you will be using to decide what kind of respirator to use



- ▶ Bravo Ultrex
- ▶ Ferbam
- ▶ Sevin XLR
- ▶ Sevin 4F
- ▶ Carbaryl 4L
- ▶ Lorsban, all formulations
- ▶ Manzate Flowable
- ▶ Nexter

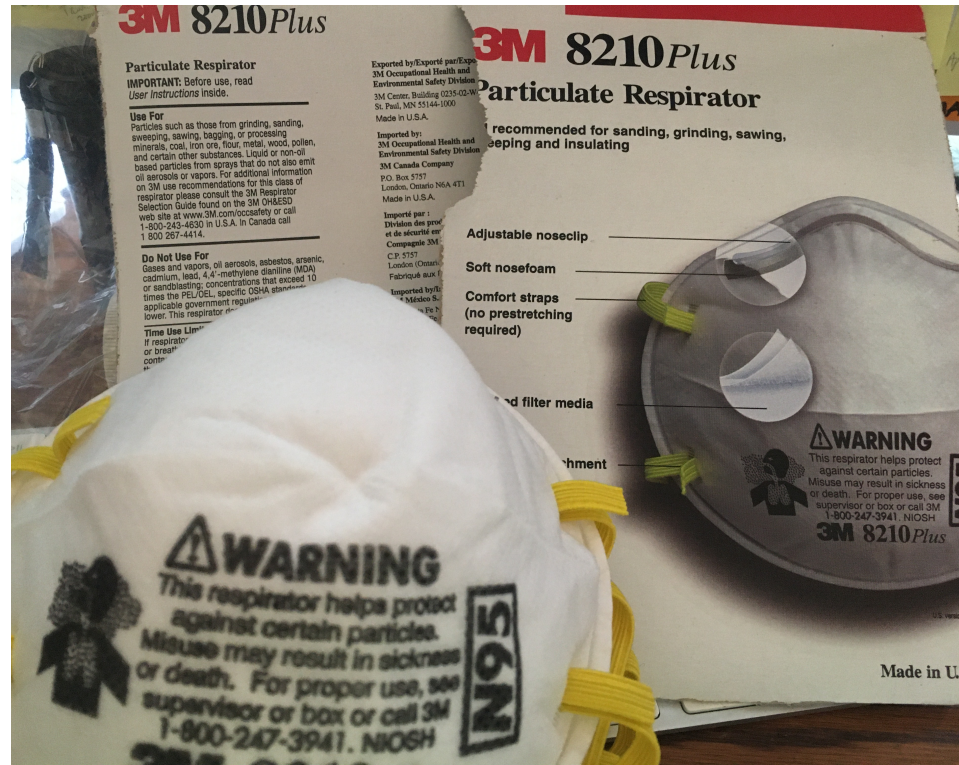
NIOSH approved particulate respirator with any N, R, or P filter (NIOSH approval number prefix TC-84A); or a NIOSH approved powered air purifying respirator with an HE filter (NIOSH approval number prefix TC-21C).

- ▶ **Diazinon AG600**
- ▶ **Diaz AG500**
- ▶ **Diaz 50W**
- ▶ **Echo 720**
- ▶ **Echo ZN**
- ▶ **Echo 90DF**
- ▶ **Imidan 70W**



A respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, or P, or HE prefilter.

So do these N95 particulate respirators count as TC-21C as dust/mist particulate respirators? **YES!**



Respirators - What's the difference?

N95 vs N100 vs P95 vs P100 vs R95 vs R100



N100

R95

R100

P95

FREQUENTLY ASKED QUESTIONS

What are the differences between N-, R- and P-filters?

N – is **Not** resistant to oils. (Oil can be from the pesticide formulation or in one of the spray adjuvants.)

R – is **Resistant** to oils but has a limit on the amount of time it can be relied on. *Shorter service (8 hours)*

P – is strongly resistant to oil or oil-**Proof**. *And longer service (40 hours)*

What do the numbers 95, 99, and 100 mean?

95 means a filter can remove at least 95% of airborne particles.

99 means the filter removes at least 99% of airborne particles.

100 means the filter removes at least 99.97% (essentially 100%) of airborne particles.

Respirators - What's the difference?

N95 vs N100 vs P95 vs P100 vs R95 vs R100



N100

R95

R100

P95



P100

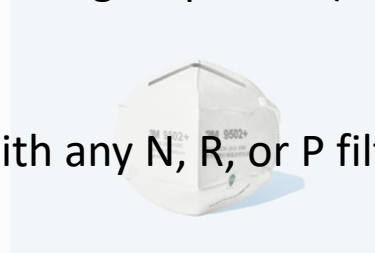
Dust/Mist particulate respirator N95

- ▶ Bravo Ultrex
 - ▶ Ferbam
 - ▶ Sevin XLR +
 - ▶ Sevin 4F
 - ▶ Carbaryl 4L
 - ▶ Manzate Flowable (label?)
 - ▶ Nexter
(but not Nexter SC)
 - ▶ Lorsban 75WG
- N=not resistant to oils



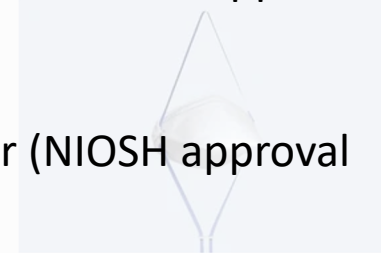
Respirators NIOSH Approved

NIOSH approved dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)



3M 9502+

\$3.38/pc



Champak F550: N95

\$4.58/pc

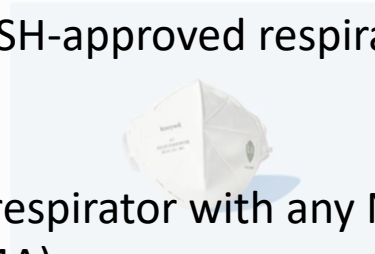


FT-N010: N95

\$2.50/pc

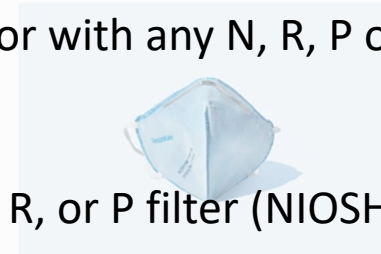
NIOSH approved respirator with any N, R, or P filter (NIOSH approval number prefix TC-84A)

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



Honeywell H901

\$3.74/pc



Innox Respokare
(RK-200-3041A): N95

\$4.63/pc



Makrite 801-N95

\$3.70/pc

NIOSH approved particulate respirator with any N, R, or P filter (NIOSH approval number prefix TC-84A)

NIOSH approved 2 strap

Dust/Mist particulate respirator R or P 95



NO ~~N~~

Oil based formulations

- ▶ Bravo Ultrex
- ▶ Ferbam
- ▶ Sevin XLR
- ▶ Sevin 4F
- ▶ Carbaryl 4L
- ▶ Lorsban, all formulations
- ▶ Manzate Flowable
- ▶ Nexter
- ▶ **Lorsban 4E**
- ▶ **Lorsban Advanced**
- ▶ **Chlorpyrifos 4E AG**
- ▶ Lorsban 75WG

NIOSH approved particulate respirator with any ~~N~~, R, or P filter (NIOSH approval number prefix TC-84A); or a NIOSH approved powered air purifying respirator with an HE filter (NIOSH approval number prefix TC-21C).



3M

8247 R95 (Broader Spectrum of Protection than N95)

Protection to both Oil & Non-oil Based Particles

*Filtration Efficiency same as **N95****

**N95 : Protection to Non-oily Particles only*



IN STOCK

Pack of 15 Masks

COMBO SALE



3M R95 Mask x5
+

CRANBERRY 2021

Half or Full Face Respirator with Organic-Vapor removing cartridges required

- ▶ **Diazinon AG500**
- ▶ **Diazinon 50W**
- ▶ **Diazinon AG600**
- ▶ **Echo 720**
- ▶ **Echo ZN**
- ▶ **Echo 90DF**
- ▶ **Imidan 70W**



A respirator with an **organic-vapor** removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, or P, or HE prefilter.

Diazinon AG500 ADAMA or Helena

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

Mixers, loaders, applicators, and other handlers using engineering controls

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

See Engi

Handlers p

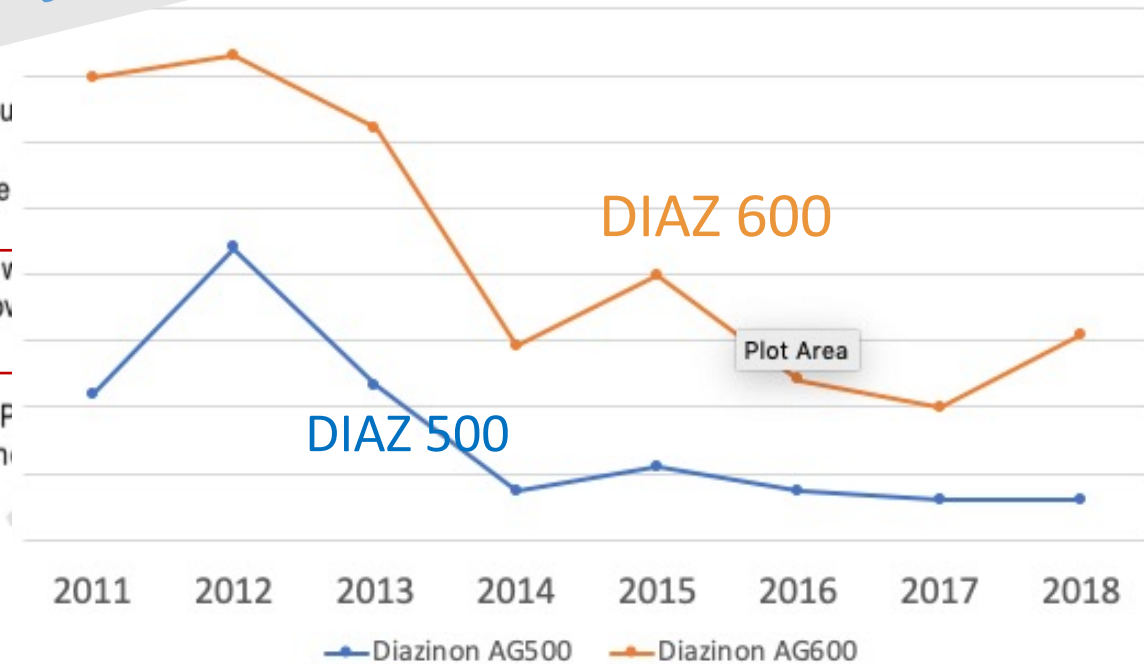
- Covera
- Chemical
- Chemical
- Chemical resistant apron if exposed to the concentrate
- Goggles, face shield, or safety glasses
- A respirator with an organic-vapor removing cartridge v canister approved for pesticides (MSHA/NIOSH approv or canister with any R, or P, or HE prefilter.

Follow manufacturer's instructions for cleaning/maintaining F PPE separately from other laundry. Discard clothing and oth concentrate. Do not reuse them.

3:1 ratio
Using water-based 600

14 mils if mixing or loading

Diazinon Acres Treated



- 50% of you say you have had or have scale

Diazinon AG500

ADAMA or Helena

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below.

Mixers, loaders, applicators, and other handlers using engineering controls must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of barrier laminate or Viton ≥ 14 mils if mixing or loading
- Chemical-resistant apron if mixing or loading

See engineering controls for additional requirements.

Handlers performing tasks, such as cleaning equipment or spill cleanup for which engineering controls are not feasible must

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves made of barrier laminate or Viton ≥ 14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant apron if exposed to the concentrate
- Goggles, face shield, or safety glasses

- Wear a minimum of an NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and a combination R, or P filter; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air-purifying respirator with OV cartridges and combination HE filters.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Wash and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.



ENGINEERING CONTROLS

Mixers and loaders must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides that provides dermal and inhalation protection [40 CFR 170.240 (d)(4)] and must:

- wear the personal protective equipment required for mixers/loaders using engineering controls;
- wear protective eyewear if the system operates under pressure; and
- be provided and have immediately available for use in an emergency such as a broken package, spill, or equipment breakdown, the protective clothing, footwear and the respirator specified in the PPE section of this labeling for handlers not using engineering controls.



- ▶ A closed system
- ▶ Engineering controls?? (An enclosed cab)
- ▶ We have none in cranberry

A respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (TC-23C) or canister approved for pesticide (TC-14G) or organic vapor (OV) cartridge or canister R, P or HE prefilter

RESTRICTED USE PESTICIDE
DUE TO AVIAN AND AQUATIC TOXICITY
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION AND ONLY FOR THOSE USES COVERED BY THE
CERTIFIED APPLICATORS CERTIFICATION.



DIAZINON AG600 WBC Insecticide

Water-Based Concentrate

For control of certain insects on fruits, nuts, vegetables, and ornamentals grown outdoors in nurseries.

Active Ingredient:	% BY WT.
Diazinon: O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate	56.0%
Inert Ingredients:	44.0%
Total	100.0%

Shake contents well before using.

KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Do not contaminate food or feed. Food utensils, such as teaspoons or measuring cups, must not be used for food purposes after use in measuring pesticides. Keep out of reach of domestic animals. Do not use on humans, household pets, or livestock. Do not permit children or pets to contact treated areas until spray has dried. Do not contaminate ornamental fishponds.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. Mixers, loaders, applicators, and other handlers using engineering controls must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- Chemical resistant apron if mixing or loading

Handlers performing tasks, such as cleaning equipment or spill cleanup for which engineering controls are not feasible must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- Chemical resistant footwear plus socks
- Chemical resistant apron if exposed to the concentrate
- Powered air purifying canister-type respirator (gas-mask) equipped with an organic vapor canister that incorporates HE filters (NIOSH approval number prefix TC-14G).

RESTRICTED USE PESTICIDE
DUE TO AVIAN AND AQUATIC TOXICITY
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION AND ONLY FOR THOSE USES COVERED BY THE
CERTIFIED APPLICATORS CERTIFICATION.



DIAZINON

AG600 WBC

Insecticide

- ▶ Engineering controls??
- ▶ We have none in cranberry

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Do not contaminate food or feed. Food utensils, such as teaspoons or measuring cups, must not be used for food purposes after use in measuring pesticides. Keep out of reach of domestic animals. Do not use on humans, household pets, or livestock. Do not permit children or pets to contact treated areas until spray has dried. Do not contaminate ornamental fishponds.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. Mixers, loaders, applicators, and other handlers using engineering controls must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- Chemical resistant apron if mixing or loading

Handlers performing tasks, such as cleaning equipment or spill cleanup for which engineering controls are not feasible must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- Chemical resistant footwear plus socks
- Chemical resistant apron if exposed to the concentrate
- Powered air purifying canister-type respirator (gas-mask) equipped with an organic vapor canister that incorporates HE filters (NIOSH approval number prefix TC-14G).

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

RESTRICTED USE PESTICIDE

DUE TO AVIAN AND AQUATIC TOXICITY

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATORS CERTIFICATION.



DIAZINON AG600 WBC Insecticide

Water-Based Concentrate

For control of certain insects on fruits, nuts, vegetables, and ornamentals

Active Ingredient:

Diazinon: O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate

Inert Ingredients:

Shake contents well before using.

KEEP OUT OF REACH OF CHILDREN**CAUTION/PRECAUTION**

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with vapor or spray mist. Do not contaminate food or feed. Food utensils, such as teaspoons or measuring spoons, must be washed after use in measuring pesticides. Keep out of reach of domestic animals. Do not use on human food crops. Do not allow children or pets to contact treated areas until spray has dried. Do not contaminate ornamental fish tanks.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. Mixers, loaders, applicators, and other handlers using engineering controls must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- Chemical resistant apron if mixing or loading

Handlers performing tasks, such as cleaning equipment or spill cleanup

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- Chemical resistant footwear plus socks
- Chemical resistant apron if exposed to the concentrate
- Powered air purifying canister-type respirator (gas-mask) equipped with number prefix TC-14G).



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ENGINEERING CONTROLS

- Some labels (particularly Lorsban, Sevin, and Diazinon formulations) have discussion of engineering controls on the first or second page at precautionary statement
- This is a closed cab system, tractor, enclosed cockpit..

C. Engineering Controls

Engineering Controls (eg. closed systems, enclosed cabs, lock and load containers) may be required by the regulatory assessment document or by the Acute Toxicity profile of a given product. The following statement should appear on the label in the Precautionary Statement section unless supplemented or superseded by a regulatory assessment document:

“When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS”.

ENGINEERING CONTROLS

- Some labels (particularly Lorsban, Sevin, and Diazinon formulations) have discussion of engineering controls on the first or second page at precautionary statement
- This is a closed cab system tractor enclosed cockpit

Another statement appearing on labels that I had not seen before...

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*PPE for
chemigation applications...*

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Sevin® XLR PLUS
brand Carbaryl Insecticide

2013 label

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

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.



Sevin® XLR PLUS
brand Carbaryl Insecticide

2013 label

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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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers applying with open cab airblast equipment at application rates equal to or less than 4.0 pounds of active ingredient per acre must wear:
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/MSHA approval number prefix TC-21C or 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.



and XLR PLUS

proved

So if respirator on label (even an N95),
you are required to...

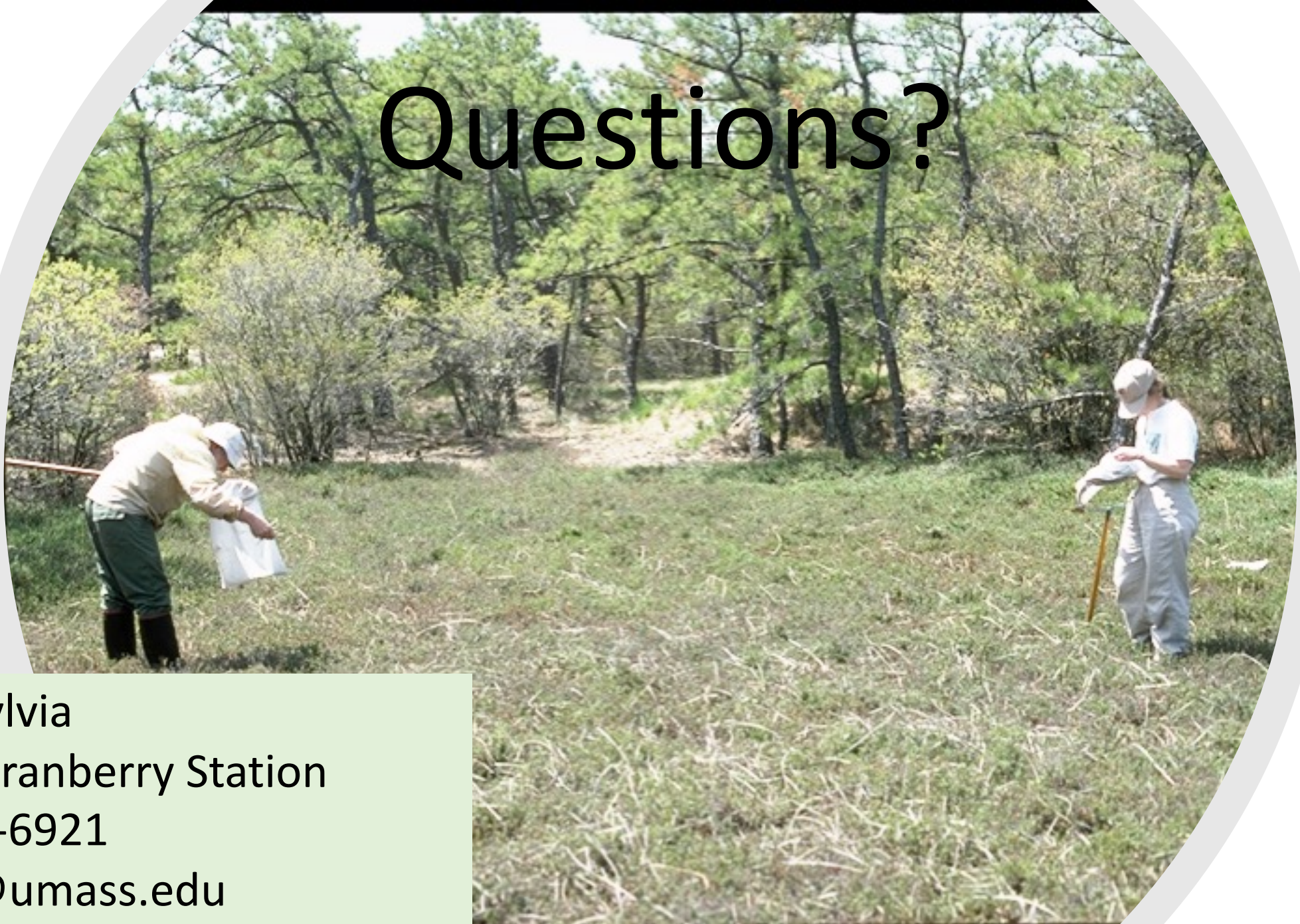
- Annual respirator training (another 50 slides about why respirator necessary, types of respirators, seal checks, replacing cartridges, etc.)
- Annual fit test (Qualitative Fit Test with isoamyl acetate)
- Medical Eval on file (signed by health care professional)
- Paperwork to prove it!



WORKER PROTECTION STANDARD

- Personal Protective Equipment
- Respirators:
 - The employer must provide respirator and fit testing, training, and medical evaluation that conforms to OSHA standards for any handler required to wear any respirator by the labeling.
- Require recordkeeping of completion of fit test, training, and medical evaluation.

Questions?



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