Top Ten Tips
From the Field

Will Lackey
Oregon Department of Transportation
2019
#10 Spill Management
Spills Happen!
Know What to do
Spills Can be Harmful

- Humans
- Animals
- Environment
Three C’s

- Control
- Contain
- Clean Up
Control Spill Situation

- Protect Yourself
- Stop the Source
- Protect Others
- Stay at the Site
**Contain the Spill**

- Confine Spilled Material
- Protect Water Sources
- Absorb Liquids
- Cover Dry Materials
Clean Up

• Pick up Spilled Material
• Pick up Absorbents
• Decontaminate the Site
• Neutralize the Spill Site
• Decontaminate Equipment
• Decontaminate Yourself
**Spill Kits**

- Phone Numbers
- Proper PPE
- Containment Snakes
- Absorbent Material
- Shovel, Broom
- Sturdy Containers or Bags
- Fire Extinguisher
Make the Calls

- Oregon Emergency Response System (OERS) (800)452-0311
- Reportable Quantity
  - 200lbs or 25 gallons, diluted or undiluted
  - Any Spill that Reaches Water
- National Response Center (800)424-8802
#9 Licensing and Certification
LICENSING VS. CERTIFICATION
When is a License Needed

- Buying, applying, or supervising the use of RUPs
- Advising others on the use of RUPs
- Applying pesticides to someone else’s property (private or public land)
- Applying pesticides as a public employee using machine-powered equipment and/or applying RUPs
- Applying pesticides on school properties
Public Pesticide Applicator

Certification Period: 01/01/2013 thru 12/31/2017
Lic: AG-L0168826PPA    Expires: 12/31/2016
Name: WILLIAM D LACKEY
Address: C/O DEPT OF TRANSPORTATION
         455 AIRPORT RD SE BLDG K
         SALEM OR 973014798

Categories: 780 802 830
Certification

“The process where an individual demonstrates knowledge and skills to apply pesticides safely”
### Search Pesticide Credit Hour Reports

**License #:**
- Certification Begin: 01/01/2017
- Type: 
- Initiated: 12/02/2015
- Renewed: 
- Expiration: 12/31/2021

**APPROVED RECERTIFICATION CLASSES ATTENDED - 01/01/2017 THRU DATE OF THIS PRINTING**

<table>
<thead>
<tr>
<th>Session #</th>
<th>Type</th>
<th>Date</th>
<th>Description</th>
<th>City</th>
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*No courses attended during the above Certification Period*

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**TRAINING SUMMARY - Commercial Pesticide Applicator - 1/1/2017 through 12/31/2021**

<table>
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<th>01/01/2017</th>
<th>01/01/2018</th>
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0 credit hours of the 40 required credit hours have been completed.

* M/C = No Credit
* *** Training requirements HAVE NOT been met. *** *
Search Results: Pesticide Credit Hour Reports

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TRAINING SUMMARY - Public Pesticide Applicator - 01/01/2013 through 12/31/2017

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Required Hours -- Core: 0 Other: 40

40 credit hours of the 40 required credit hours have been completed.
• Multiple Rinse
• Reuse Rinsate
• Recycle MT Containers
• Absorbents/Soaked PPE
• Cancelled/Suspended
Equipment Inspection/Repair

• Hoses/Fittings
• Tanks
• Filters
• Pumps
• Wiring
#6 Herbicide Resistance
<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 1</th>
<th>3 years later</th>
<th>After spraying</th>
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<tbody>
<tr>
<td>Before spraying</td>
<td>After spraying – before spraying</td>
<td>After spraying</td>
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<tr>
<td><img src="image1" alt="Before spraying" /></td>
<td><img src="image2" alt="After spraying" /></td>
<td><img src="image3" alt="3 years later" /></td>
<td><img src="image4" alt="After spraying" /></td>
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</tbody>
</table>
Weeds

- Russian Thistle – 200,000 seeds
- Kochia – 15,000 seeds
- Rush Skeletonweed – 20,000 seeds
Herbicide Resistance Prevention

- Rates
- Herbicide Mode of Action
- Tank Mixes
- IPM
What is Pesticide Drift?

- Vapor Drift
- Particle Drift
Vapor Drift

- Herbicide Turns into a Gas and Moves Off-Target
- Temperature
- Formulations
Particle Drift

- Herbicide Droplets Moving Off-Target
- Droplet Size - Microns
## Classification of Spray Droplet Size

<table>
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<th>Size (μm)</th>
<th>10</th>
<th>100</th>
<th>300</th>
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<td>Atomization Type</td>
<td>Ultra-fine</td>
<td>Fine</td>
<td>Semi-fine</td>
<td>Semi-coarse</td>
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</table>

- **Dry fog**: Under 10μm
- **Fine mist**: 10~100μm
- **Fine drizzle**: 100~300μm
- **Light rain**: 0.3~1.0mm
- **Rain~Storms**: Over 1.0mm
Particle Drift

- Herbicide Droplets Moving Off-Target
- Droplet Size – Microns
  - Lower Spray Pressure
  - Larger Nozzle Orifices
Minimizing Drift

- Low/Non-Volatile Formulations
- Nozzles
  - Type
  - Height
- Lower Pressure
- Additives
- Weather – Wind, Temp, Humidity
#4 Calibration
Calibration

- Speed, Width, Volume
Back Pack Sprayer Calibration

18.5ft

1. Spray Area
2. Time
3. Collect
4. Oz Collected = Gallons/Acre
#3 PPE
Risk = Toxicity \times Exposure
Personal Protective Equipment

- Minimum
  - Long Sleeved Shirt, Long Pants, Shoes With Socks and Proper Gloves
- Follow the Label
- Cleaning & Maintenance
- Disposal
  - Heavily Soaked PPE
PPE

- Respirators
- Gloves
- Eyewear
- Boots
- Aprons/Suits
#2 IPM
Components of IVM

- Identify Pests
- Focus on Prevention
- Monitor Pest Problems
- Establish Thresholds
  - Early Detection Rapid Response
- Treat Pest Problems
- Evaluate Efficacy
Identify Pests
Prevention

- Sanitation
- Exclusion
- Weed / Disease Free Plants
- Crop Rotations
Monitoring
Establish Treatment Thresholds
Catch them early - while you still can...

- Widespread awareness
- Detection
- Introduction

Eradication: simple, possible, difficult, impossible - only expensive local management
Just Missed the Cut
Compatibility Testing

Record Keeping

Review Inventories
#1 Follow the Label
The Label is the Law

- Section 3
- Section 18 - Emergency
- Section 24(c) – Special Local Need
- Section 25(b) – Minimum Risk
Parts of a Label
For the control of woody plant species and annual and perennial broadleaf weeds on

- range and permanent grass pastures, grasses grown for hay, Conservation Reserve Program (CRP) sites;
- forest sites, conifer and tree plantations, and Christmas tree plantations;
- non-crop areas for example, airports, barrow ditches, communication transmission lines or structures, manufacturing and storage sites, electrical power and utility rights-of-way, fencerows, gravel pits, industrial sites, military lands, mining and drilling areas, non-irrigation ditch banks, oil and gas pads, parking lots, petroleum tank farms, pipelines, railroads, roadsides, storage areas, storm water retention areas, substations, unimproved rough turf grasses, vacant lots and other non-crop residential areas, and around farm buildings;
- natural areas (open space) for example, campgrounds, parks, prairie management, trails and trailheads, recreation areas, wildlife openings and wildlife habitat and management areas;
- including grazed areas on these sites; and
- aquatic sites
<table>
<thead>
<tr>
<th>GROUP</th>
<th>4</th>
<th>HERBICIDE</th>
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Active Ingredient:
- Triclopyr choline: 2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, choline salt .......................................................... 54.72%
- Other Ingredients ........................................................................... 45.28%
- Total ................................................................................................ 100.0%

Acid equivalent: triclopyr – 39.02% - 4 lb/gal

Precautionary Statements

Hazard to Humans and Domestic Animals

EPA Reg. No. 62719-687
WARNING
May be fatal if swallowed • Causes substantial but temporary eye injury • Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)
Applicators and other handlers must wear:
• Protective eyewear
• Long-sleeved shirt and long pants
• Shoes plus socks
• Waterproof gloves
Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.
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.
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.

Agricultural Use Requirements (Cont.)
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:
• Protective eyewear
• Coveralls
• Shoes plus socks
• Waterproof gloves
Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal. Open dumping is prohibited.

**Pesticide Storage:** Store above 23°F or agitate before use.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Nonrefillable containers 5 gallons or less:**

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.
Use Restrictions

For use in New York State, comply with Section 24(c) Special Local Need labeling for Vastlan, SLN NY-160004.

Chemigation: Do not apply this product through any type of irrigation system.

Do not apply Vastlan directly to, or otherwise permit it to come into direct contact with, grapes, tobacco, vegetable crops, flowers, or other desirable broadleaf plants. Do not permit spray mists containing Vastlan to drift onto such plants.

Do not apply to salt water bays or estuaries.

Do not apply directly to un-impounded rivers or streams.

Do not apply using fixed wing aircraft.

Do not apply where runoff water may flow onto agricultural land as injury to crops may result.

Do not apply with a mistblower.
Use Information

Use Vastlan at rates of 0.5 to 9 quarts of Vastlan per acre to control broadleaf weeds and woody plants. In all cases, use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. Refer to Maximum Use Rates paragraph - follow defined rates restrictions based on use sites and whether or not grazing or haying is involved.
Labeling Questions

- Oregon Department of Agriculture
- Pesticide Distributors
#10  Spill Management
#9 Licensing and Certification
#8 Pesticide Disposal
#7 Equipment Inspection
#6 Herbicide Resistance
#5 Drift Management
#4 Calibration
#3 PPE
#1 Follow the Label
Questions?

Will Lackey
Vegetation Management Coordinator
Oregon Department of Transportation
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william.lackey@odot.state.or.us