In Oregon, the production of some crops depends on pesticides that may only be applied by air to protect agricultural crops and forests. Aerial applicators must be professional, well trained, and highly skilled at conducting a difficult task while minimizing risk to themselves, others, and the environment.

Although there are many aspects of pesticide applications that are similar regardless of the type of application equipment used, aerial applications pose special challenges that are specific to this particular method of applying pesticide products.

As an aerial applicator in Oregon, this information and the National Aerial Applicator study manual, are being provided as tools to help ensure that the pesticide applications for which you are responsible are made in a safe, legal, accurate, and effective manner.
Questions aerial applicators should ask themselves BEFORE applying a pesticide in Oregon

<table>
<thead>
<tr>
<th><strong>Is a pesticide license required for a person or company to make pesticide applications by air to the property of others?</strong></th>
<th>Yes. To apply pesticides to the property of others, a pilot must be licensed as a Commercial Pesticide Applicator in specific categories of application (Forestry, Ag-Herbicide, etc.). Any company conducting pesticide applications must also be licensed as a Commercial Pesticide Operator.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Is a pesticide license required for a person making pesticide applications to their own property or that of their employer?</strong></td>
<td>Yes. A Private Applicator license is required for applications of Restricted Use Pesticides (RUPs) on agriculture land that you own or lease, or that of your employer.</td>
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<tr>
<td><strong>Do mixers/loaders or others assisting in the application need to have pesticide licenses?</strong></td>
<td>No. However, applicators should train and supervise all mixer/loaders because any mistake made in mixing or loading is the responsibility of the applicator.</td>
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<tr>
<td><strong>What happens when a complaint is filed about an application I have made?</strong></td>
<td>The Department of Agriculture will contact the applicator, the complainant, and others if necessary to determine if a violation of state and/or federal law has occurred.</td>
</tr>
<tr>
<td><strong>What steps should be taken prior to making an application to PREVENT problems?</strong></td>
<td>READ THE PESTICIDE LABEL to confirm rates and restrictions. In addition, the competency, mind-set, and physical condition of the pilot and the safety of the aircraft are of utmost importance. Check, and then double check. Your life, and perhaps others, depends on it.</td>
</tr>
<tr>
<td><strong>Is scouting the target site really necessary?</strong></td>
<td>YES. Site reconnaissance can provide important information:</td>
</tr>
<tr>
<td></td>
<td>• Accurate location, size and shape of area to be treated. Note the terrain and any obstacles or hazards.</td>
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<td></td>
<td>• Adjacent crops, fields, field workers, residences or other sensitive sites like hospitals, schools, parks, roads, work crews, waterways, irrigation canals, etc.</td>
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<tr>
<td></td>
<td>• Accurate weather conditions.</td>
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<tr>
<td></td>
<td>• Proximity to organic farms, beehives, dairies, feedlots, dog kennels, horses in fields or stables, etc.</td>
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<td></td>
<td>• Limitations to flight pattern and flight crew access.</td>
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<tr>
<td></td>
<td>Make a FINAL check to confirm no recent changes to the site, weather conditions, and surrounding areas including standing water or people in the target area.</td>
</tr>
<tr>
<td><strong>PRODUCT NAME</strong></td>
<td></td>
</tr>
<tr>
<td>1. DIRECTIONS FOR USE</td>
<td>6. KEEP OUT OF THE REACH OF CHILDREN DANGER</td>
</tr>
<tr>
<td>2. PRECAUTIONARY STATEMENTS</td>
<td>10. REPERT FOR DISPOSAL</td>
</tr>
<tr>
<td>3. EXPOSURE HAZARDS</td>
<td>14. ADDITIONAL INFORMATION</td>
</tr>
<tr>
<td>4. PHYSICAL FORM OF CHEMICAL HAZARDS</td>
<td>5. STORAG AND DISPOSAL</td>
</tr>
</tbody>
</table>

READ THE LABEL FIRST! |
- Correct product, crop, rate, dilution |
- DRIFT MINIMIZATION |
- Use Restrictions |
- Hazards to people/environment |

If in doubt...DO NOT spray!
Oregon is a “Zero Tolerance” drift state. Pesticides found off the target site may be subject to a violation of state and possible federal law.

Q: Who is responsible to prevent drift off of a target site?
A: The pesticide applicator (pilot) is in complete control of making the decision when to spray or not to spray, where to spray and under what conditions to spray. The final decision, and responsibility lies with the applicator to prevent drift.

Q: What are some techniques to reduce drift?
A: Many factors affect whether or not an application will drift off site. Some of the factors to consider in minimizing drift potential include:

- Spray mixture physical properties
- Droplet size (<200 microns = high risk of drift)
- Nozzle orientation (wind shear)
- Nozzle condition – worn, old, damaged, etc.
- Calibration – all nozzles discharging accurately
- Weather (temperature, wind speed and direction, inversion, rain in forecast, saturated soils, etc.)
- Untreated buffer zones
- Discharge pressure adjusted for air speed
- Boom length adjusted for droplet size to minimize drift. Some labels limit boom length to a percentage of wing span or rotor width
- Use a properly working positive shut-off
- Use drift retardants to maximize droplet size
- Application height as low and slow as feasible and safe

Use of advanced technology and new equipment improvements like split booms and satellite guidance systems can greatly increase deposition accuracy and uniformity.

Know what crops or sensitive sites are within close proximity to your application site. Some people and some plants are very susceptible to small amounts of pesticides that may move off the target site either at the time of application or through volatilization even days after an application is made. Phenoxy herbicides (including 2,4-D, triclopyr, MCPA, dicamba) are an example of products that may volatilize, especially in ester formulations. There is a higher risk of volatilization and drift when applications are made in very warm weather with low humidity.

DO NOT MAKE PESTICIDE APPLICATIONS IN A WEATHER INVERSION OR IN FOG
Always check air movement before applying pesticides to check for optimum upward air mixing.
Recordkeeping requirements for OREGON COMMERCIAL PESTICIDE OPERATORS

**ODA Recordkeeping Requirements**
- Firm or person: Full name, address and phone number
- Location: Address, maps, geographic description, T/S/R, GPS, etc.
- Date/Time: Month/day/year, beginning and ending time
- Firm or person who provided the pesticide(s) applied
- EPA registration number of each pesticide applied or the product name, manufacturer, and formulation of each product
- Amount of each product applied per unit of measure
- Type and amount of the carrier and any adjuvant(s) applied per unit of measure
- Specific crop/site treated
- FAA # of airplane or helicopter

Worker Protection Standards (WPS) information Exchange:
What information you need to share and with whom

Information exchange between you and your customers is an important part of completing a pesticide application.

Worker Protection Standards (WPS) are federal and state requirements necessary to protect handlers and workers on agricultural sites. Agricultural crops, forestry, and nurseries are sites where WPS applies for applications made by air.

Information to provide to your customer before you apply:
- Product name and active ingredient(s)
- EPA Registration Number
- Date and time of application
- Field ID/Location of treated area
- Restricted Entry Interval (REI)

Provide WPS application-specific information to growers so they may notify their workers prior to the application. If not possible, provide info as soon as feasible after application is made.

USDA Recordkeeping requirements for Oregon Private Pesticide Applicators for Restricted Use Pesticides

**USDA Private Applicator Recordkeeping Requirements**
- Brand/Product name of each product
- EPA Registration number
- Location: Address, maps, geographic description, etc.
- Date/Time: Month/day/year
- Total Amount of pesticide applied (product, NOT solution)
- Crop, Commodity, or Site
- Size of area treated
- Name of licensed applicator and Private Applicator number
- Record application within 14 days

Remember… What label may be usable and acceptable today, may not be so tomorrow!