

Pesticide Drift Mitigation Considerations

Pesticide spray drift is the movement of pesticide dust or droplets through the air at the time of application or soon after, to any site other than the area intended.

Pre-Spray Site Evaluation & Pesticide Drift Mitigation Pre-planning

Evaluate the site and surrounding areas.

- Prevailing wind direction and speed pattern
- Topography & air flow evaluation
- Vegetation & fencing screening
- Distance to adjacent crops & growth stage
- Distance to houses & work areas
- Adjacent property fieldworker activities
- Distance to streams & sensitive habitat areas
- Distance to bees

Examples:

Can an untreated buffer be left adjacent to property? Use drift cards to assist in development.

Can the treated area be changed/moved?

Can site roads or structures be used as a buffer?

Can vegetation be planted or a fence built?

Can the application time be changed?

Site modifications:

Communication Plan:

- Get to know your neighbors & their crops or property uses
- Crop protection plan discussed w/adjacent neighbors (necessity, pests to be controlled, protection chemicals under consideration)
- Neighbors notified of pesticide application in time to take precautions to protect workers, crops, etc.

Site Communication Plan:

Application Method & Equipment Evaluation:

- Determine best method: Air/Ground/Hand Application equipment: Combination?
- Choose the best equipment (boom, air-blast, shielded, etc.). Learn how to operate new equipment.

- Choose the correct nozzle type & boom configuration for optimum droplet size:
 - Number of nozzles and spacing
 - Nozzle Orifice Size
 - Nozzle spray pattern angle
- Determine optimum boom height and spray pressure
- Insure adequate carrier volumes & agitation
- Determine accurate tractor speed

Method & Equipment:

Applicator Training: Does your applicator understand the interaction of factors associated with pesticide drift?

Applicator must be able to:

- Perform a calibration test
- Identify equipment, including nozzles, that needs repair
- Use weather monitoring equipment and have access to real-time weather data (wind speed & direction, temperature, relative humidity)
- Identify weather conditions that indicate an inversion
- Re-access when weather conditions change
- Use only pest control equipment in good repair and safe to operate.
- Perform all pest control in a careful and effective manner.
- Use only methods and equipment that insures proper application of pesticides.
- Perform all pest control under proper weather conditions
- Exercise all reasonable precautions to avoid contamination of the environment.
- Stop the application when drift is likely to occur.

Applicator(s) Name & training:

Pesticide Evaluation:

- Application consistent with IPM
- Alternatives considered
- Least persistent and lowest toxicity
- Optimum formulation & volatility that provides coverage and mitigates drift
- Additives & drift retardants considered
- Tank mix compatibility tested & evaluated for drift

Pesticides Under Consideration:

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Pesticide Labeling Requirements & County Permit Conditions

- Follow labeling and county permit condition drift mitigation/prevention statements:
Ex: specific nozzle/droplet size, equipment specifications, mandatory buffer zones, other site restrictions as described on the permit
- Weather conditions
- Equipment specifications
- Application timing requirements

Labeling Requirements:

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Post Application Evaluation:

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Supervisor's Notes:

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Disclaimer: The information in this document is intended to assist the applicator and grower in recognizing the potential for pesticide spray drift. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.