



# COLORADO ENVIRONMENTAL PESTICIDE EDUCATION PROGRAM

Pesticide Fact Sheet #303  
CEPEP 5/00  
Updated 6/06

## REDUCING SPRAY DRIFT

L.G. Skoglund  
S.K. McDonald

This fact sheet defines drift, factors affecting drift, and provides ways to reduce the danger of spray drift.

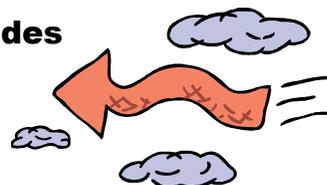
<http://www.cepep.colostate.edu>

## Reducing Spray Drift

When applying pesticides there is always a chance that some will escape the target area. When drift occurs, the pesticide application is less effective. Also, the drifting pesticide is deposited where it is not needed or wanted. This can cause damage to non-target plants, injury to people and contaminate water sources.

### There are two ways that pesticides move downwind:

- particle drift
- vapor drift



**Particle drift** is the off-target movement of spray particles (droplets) that are formed during application. The amount of drift depends upon the number and size of droplets produced by the nozzle. The smaller the droplets, the more they drift.

**Vapor drift** occurs when a pesticide volatilizes or changes from its liquid state into a gaseous state. Vapor drift can travel much longer distances than particle drift. This is primarily a problem with some herbicides that have low vapor pressures. When applied during warm temperatures, these herbicides can volatilize rapidly and move off-site.

### Factors Affecting Drift

- Droplet size
- Weather conditions
- Equipment adjustment
- Nozzle size
- Distance from nozzle to target
- Sprayer pressure
- Pesticide formulation

### Ways to Reduce the Danger of Drift

- Select a nozzle type that produces large droplets
- Use lower end of pressure range
- Keep the boom close to the target
- Increase the nozzle size (capacity)
- Spray when wind speeds are less than 10 mph
- Do not spray when air is completely calm or an inversion exists
- Use a drift control additive

### **More Tips**

- Avoid getting pesticides on painted surfaces
- Remove movable articles that might become contaminated
- Close windows and doors tightly
- Avoid areas of air intake to buildings
- Do not apply pesticides near surface water

### **READ THE LABEL!**

### **References and Resources**

Buffington, .EJ. and McDonald, S.K. 2001. *General Colorado Commercial Pesticide Application and Safety Training Guide*. Colorado State University and Colorado Department of Agriculture, Fort Collins, CO.

Gempler's IPM Solutions. October 1999. *Steps to Help You Avoid Pesticide Drift*, Gempler's, Inc., Belleveville, WI.

[CEPEP Home Page](#)