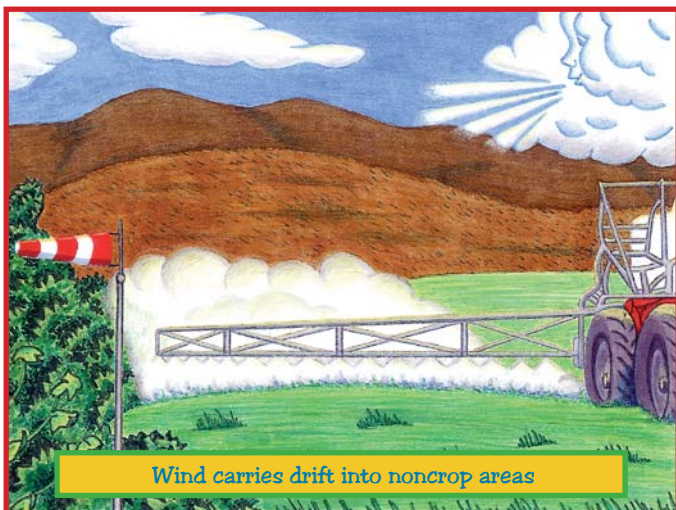


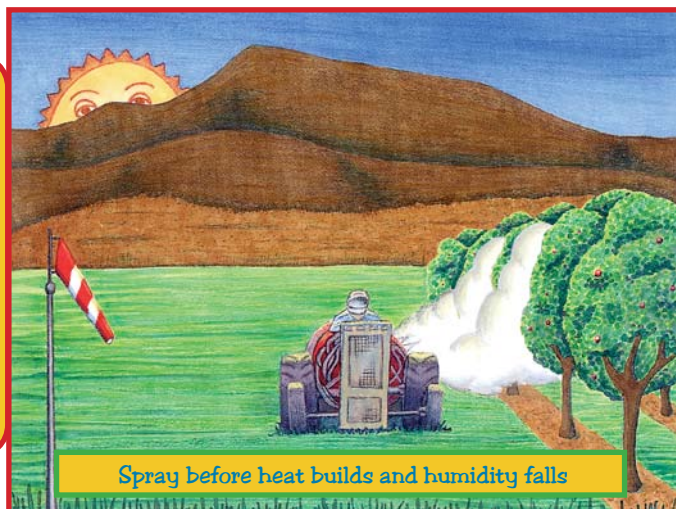
PESTICIDE DRIFT MANAGEMENT



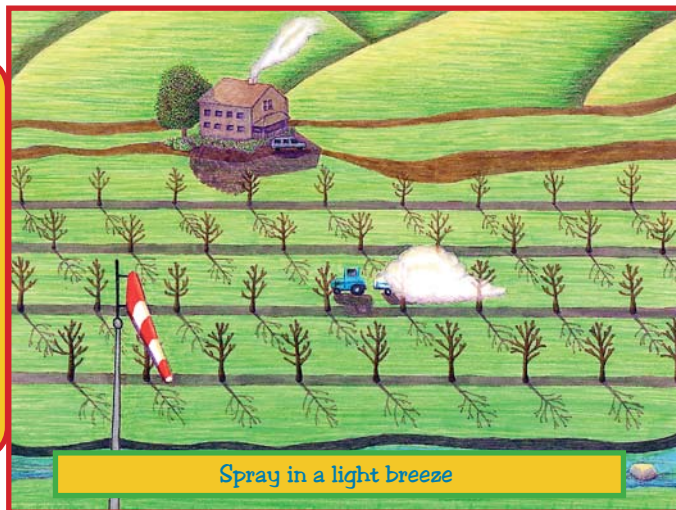
Wind Drift



Thermal Drift



Inversion Drift



Author: Paul Jepson, Director, Integrated Plant Protection Center. Artwork: Nancy Babayco. This publication is a product of the iSNAP Program, within the Oregon State University Integrated Plant Protection Center (<http://ipmnet.org/>). Support was provided by the Western IPM Center, USDA Risk Management Agency, and the Natural Resources Conservation Service.

Wind carries drift into noncrop areas

- Never spray when wind speeds exceed 9 mph.
- Check nozzle output frequently to maintain calibration, and replace worn nozzles.
- Maintain proper nozzle spacing, boom height, and boom suspension to minimize causes of drift.

Wind Drift

Spray in a light breeze, reduce boom height, and leave an offset

- Spray at wind speeds of 2-9 mph and at temperatures of less than 70°F.
- With boom sprayers:
 - Minimize boom height by using correct nozzle spacing.
 - Moderate ground speed to avoid boom wobble and bounce.
 - Adjust flow rates and pressures to the middle range for the nozzle.
- On marginal days, use an offset to protect sensitive downwind sites.

Do not spray in hot, dry conditions

- Spray drops evaporate rapidly, particularly above 70°F and when humidity is less than 40 percent.
- Drops become so small they fail to land on the crop and drift away.

Thermal Drift

Spray before heat builds and humidity falls

- Use weather forecasts and spray in cooler conditions.
- With air-blast sprayers:
 - Adjust nozzles to target the tree.
 - Turn off sprayer at row ends when turning.
 - Spray inwards in outer rows.
 - Moderate ground speed, nozzle flow rates, and air speeds.
- Use unsprayed offsets and buffers to protect sensitive downwind sites.

Do not spray in inversion conditions

- Clouds of spray drift may remain buoyant and mobile in light breezes when there is an inversion.
- They can move large distances away from the spray site.
- Avoid cool, stable conditions with low surface mixing.

Inversion Drift

Spray in a light breeze

- Spray at wind speeds of 2-9 mph to enable surface mixing that carries the spray cloud into the crop canopy.
- On marginal days, increase drop size by moderating nozzle pressures and flow rates.