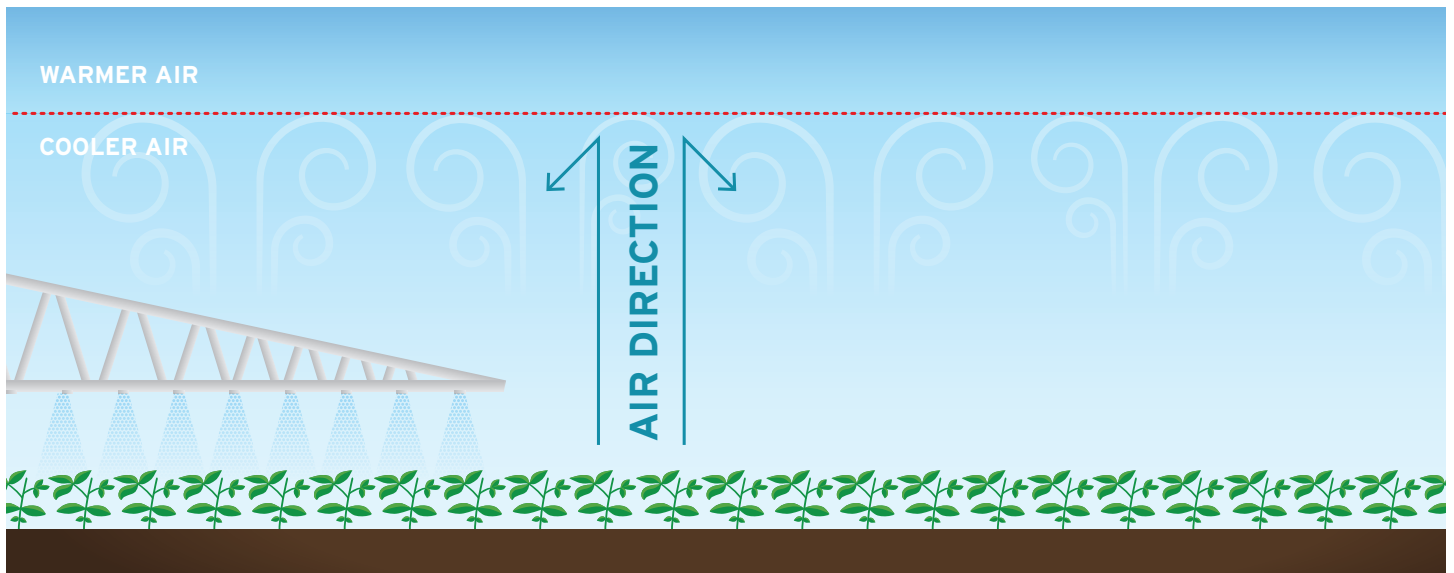


# Avoid Off-target Movement: Don't Spray During Temperature Inversions



A temperature inversion occurs when a layer of warm air covers a layer of cooler air and acts like a lid, preventing the cooler air from rising and dissipating into the upper atmosphere. During a temperature inversion, spray particles can become trapped in the warmer layer of air and stay suspended until wind movement increases, resulting in off-target movement.

## A temperature inversion is most common during calm wind and clear skies when:

- Wind speeds are 3 mph or less
- During late evenings and early mornings when temperature within 5 degrees of nighttime low
- Fog is visible during dawn or dusk

## CHECK FOR A TEMPERATURE INVERSION BEFORE EVERY APPLICATION.

Monitor temperatures using weather apps for your smartphone when planning an application, and also always check conditions in the field. If temperature is within 5 degrees of the overnight low, closely check wind speed and particle movement in the field.

Measure wind speed using an anemometer. If wind is less than 3 mph, you should not apply herbicide.

Use smoke or powder to indicate particle movement the smoke or powder should drift gently with the wind. If it gathers in a stationary, suspended cloud, or moves laterally, that indicates a temperature inversion – do not spray.

Measure the temperature at ground level (approximately 3 feet) and at 7 feet above ground. If the difference is more than a few degrees, it is considered an inversion.

Never spray if you suspect a temperature inversion. You run the risk of damaging susceptible plants in nearby fields, lawns and gardens. Wait until later in the day and check again for a more favorable application environment.