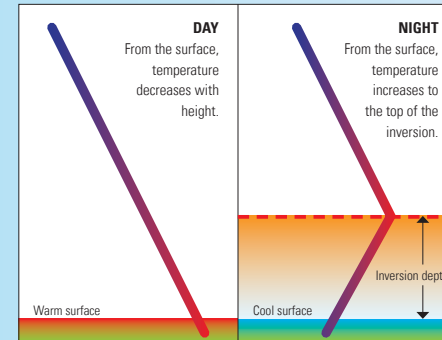


WHAT IS AN INVERSION?



Above: Typical vertical temperature profiles for a point in time during the night and day. The day profile typically cools with height and the night profile typically warms with height to a depth which constitutes the surface temperature inversion layer. The point where the temperature stops increasing is the top of the surface temperature inversion layer.

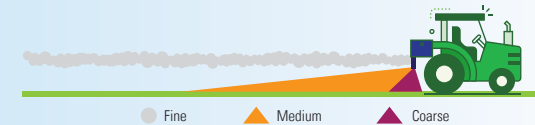
1 NEUTRAL CONDITIONS FAVOUR PLUME DEPOSITION TO THE NEAR SURFACE



2 UNSTABLE CONDITIONS PROMOTE VERTICAL DISPERSION



3 STABLE CONDITIONS CAUSE HIGH CONCENTRATION NEAR THE SURFACE



Source: GRDC Weather Essentials for Pesticide Application Booklet, 2017, author: Graeme Topper.

KEEP THE SPRAY ON THE WEEDS



TRAINING AND ACCREDITATION

- A current chemical user accreditation certificate (AQF 3) is required by any operators applying chemicals in NSW.
- All spray contractors and staff need to be licenced by EPA or Biosecurity Queensland.



NEIGHBOUR COMMUNICATION

- It is good practice to discuss cropping intentions with neighbours prior to each season.
- Keep abreast of sensitive crops at <https://crop.satamap.com.au>.



RECORD KEEPING

- Legislation requires accurate records to be made.
- Records need to be kept for 3 years in NSW and 2 years in Queensland.
- Check labels for any extra records that need to be kept in addition to state requirements.



PRODUCT CHOICE

- All products can drift.
- Different products have different volatility.
- Choose products which are fit for purpose.
- Be aware of the effects of mix partners and adjuvants on volatility and drift potential.



APPLICATION TIMING

- See reverse.
- Expect an inversion every night. They commonly occur one or two hours before sunset and persist through the night until one or two hours after sunrise.



WIND SPEED

- Only apply at wind speeds between 3-15km/h (day time wind speed only).
- Monitor wind direction and speed at the site of application, before, during and completion of each application.



WATER VOLUME

- Ground rigs - a minimum of 60 L/ha.
- Use higher water volumes to ensure good efficacy.



DROPLET SIZE

- Boom Sprayers - a minimum spray quality of Very Coarse is mandatory. See next column.



NOZZLE CHOICE & PRESSURE

- You must use a nozzle that produces Very Coarse (VC) spray quality.
- Between 1 Oct and 15 Apr use Extra Coarse (EC) spray quality.



BOOM HEIGHT

- No more than 0.5m above target or false target (for 110° fan angle).



APPLICATION SPEED

- Aim to eliminate boom movement.
- As most rigs are rate controlled, utilise speed to a minimum of Very Coarse spray quality. Speeds above 21 km/h reduce efficacy and increase drift potential.



DO NOT FORGET TO CLEAN AND DECONTAMINATE THE SPRAY RIG AND BOOM

