

# Productive environments

Looking after the environment, your farm and your business



## Stubble management

**Responsible stubble management is the key to maintaining your right to burn stubble. Stubble burning is an important tool for rice growers but poor practice can affect your local community.**

Every incident that negatively affects local communities puts your right to burn at risk. Take care to minimise the effects of stubble burning by preventing smoke from covering nearby towns, neighbouring dwellings or roads.

## Know the conditions

Weather conditions during autumn, such as light winds and temperature inversion layers, can prevent smoke from dispersing.

A temperature inversion occurs when a layer of warm air sits above a layer of cooler air. The warm layer acts as a lid, preventing the cooler air from rising and during a stubble burn, the smoke is trapped close to the ground and forced sideways. Inversions often happen when a cool evening follows a calm, clear day. The height of the inversion layer (mixing height) drops rapidly in the late afternoon as the ground cools, therefore burning in the middle of the day is recommended.

Understanding weather conditions before burning can help minimise the impact of burning on others. The Bureau of Meteorology provides detailed forecast information on wind and temperature inversions (mixing height) at a regional level (see over).

## Alternatives to burning

Alternative stubble management options can promote improved soil health and moisture conservation. The rice industry is currently supporting a range of projects investigating alternative stubble management. These include mechanical and biological treatments to enable winter crop establishment after rice, as well as marketing options for removed rice straw.

### Your responsible burning checklist

- Be aware of sensitive neighbouring areas
- Notify neighbours when you intend to burn
- Check the Bureau of Meteorology's forecast tool for determining appropriate burning conditions (see over)
- Only burn when stubble is dry
- Plan to burn as close to the middle of the day as possible, when inversion layers are less likely
- Avoid burning when there is no wind
- Check local permit requirements
- Take necessary precautions to ensure the burn is conducted safely, e.g. have firefighting equipment on site and use fire breaks
- Make a record of your burn as you would for chemical use, e.g. time, weather conditions and area burnt.



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## Weather forecast tool

Check that weather conditions are suitable for burning by using the weather forecast tool on the Bureau of Meteorology (BOM) website.

- Go to the BOM homepage, [www.bom.gov.au](http://www.bom.gov.au)
- Click on the MetEye link in the middle of your screen

## Mixing height information

The BOM's 'mixing height' information is used by fire authorities when determining appropriate conditions for hazard reduction burns and is an excellent tool for farmers when planning for stubble burning. To find mixing height information:

- click on the 'Wind Forecasts' tab, on the left of screen
- select the button for 'mixing height'
- use the zoom function to find your location on the map
- use the arrow at the top left side of the map to see the forecast for mixing height over coming days.

Dark orange and red colours are the indicators of the best conditions for burning.

## Wind direction information

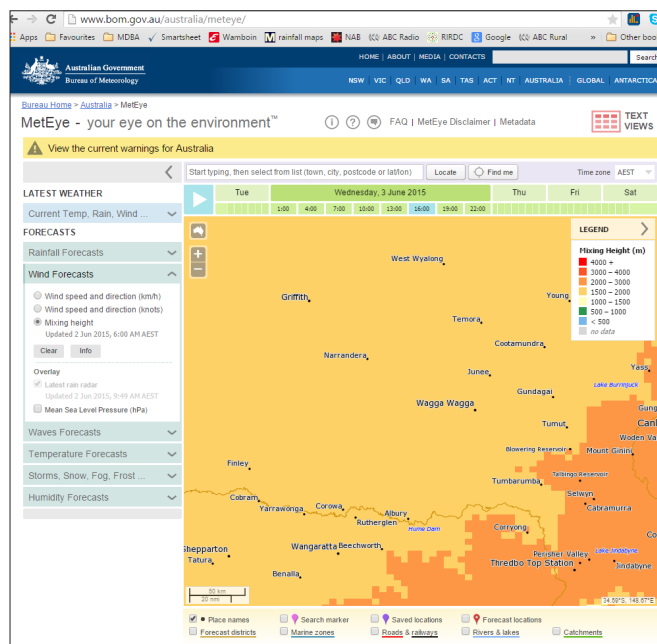
Forecasts for wind speed and direction are also available:

- on the 'Wind Forecasts' tab, select the button for 'wind speed and direction'
- use the zoom function to find your location on the map
- use the arrow at the top left side of the map to see the wind forecast over coming days.

Light blue colours show the right wind speed for burning. Look at wind direction to avoid affecting towns and roads.



*Back burning the perimeter of the field minimises the risk of fire escape*



*Mixing height information on the BOM website can help growers plan the best time to burn stubble*

**Where there are trees in the paddock, clear the ground around the tree and back burn away from the tree to avoid fire damage.**

**Protect roadside vegetation by not burning beyond the farm boundary. Fire damage to vegetation destroys habitat and damages the industry's reputation as a responsible land manager.**



### For more information, contact:

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