



ChemCert Connections

March 2007

The Weather and Pesticide Spraying

What's making news?

ChemCert (NSW) recently held the 2007 Professional Development Program for trainers at Dubbo. The highly successful workshop was held over 2 days and focused primarily on spray drift issues. A range of expert speakers presented to a group of 20 people. Trainers left the workshop with a higher level of knowledge, which will be used to improve the quality of their training delivery.

Have your say!

ChemCert (NSW) has made a submission in relation to the issue of chemicals of security concern. Please contact us if you have any questions about this issue.

We are accepting suggestions for next years' professional development program. Please let us know what you would like to see on the agenda.

Statistics

There are now 350 trained NSW DEC compliance officers throughout NSW to administer the Pesticides Act.

Diary Dates

- During 2007 NSW DPI will run workshops in conjunction with other agencies, including BOM and the catchment management authorities, to help farmers make sense of the range of weather information available. Dates are yet to be set, but contact your local DPI office for when "The Farmers Guide to Managing Climate Risk" workshops will be held in your area.
- "Crop spraying for People, Profit and the Environment" is a workshop being held in Ballarat, Vic on 9 March 2007. Speakers include world renowned spray application expert Prof. Paul Miller from Silsoe, England. Contact the ChemCert office if you would like more information on this workshop.
- Check out http://www.grdc.com.au/whats_on/diary/main for events of interest.



Weather for Pesticide Spraying

Weather plays a critical role in pesticide application, since spray droplets move with the air that surrounds them. Users should check weather conditions are within acceptable limits before spraying. It's essential that a person engaged in spraying understands and is aware of the effects of wind speed & direction, temperature, humidity, atmospheric stability, thermal drift, and inversions.



Why is it so important?

The law requires it! Legislation states that weather details must be part of your spray application records. Refer to the example record keeping form in the NTR for weather details that are required to be kept.

Spray drift issues are much less likely if application occurs in acceptable weather conditions.

Spraying in acceptable weather conditions is more likely to result in the product being effective for the intended purpose.

So when can I spray?

Bureau of Meteorology (BOM) guidelines:

- Read the product label and follow all label instructions.
- Spray when the wind is steady and ideally 3-15 km/h
- Avoid variable or gusty wind conditions
- Avoid calm conditions – small droplets may remain suspended for long periods
- Spray when wind blows away from sensitive areas – use buffer zones
- Avoid spraying in temperatures above 28°C
- Aim to spray when Delta T is between 2 and 8, and not greater than 10
- Do not spray when inversion conditions exist
- Aim to spray when the atmosphere is neutrally stable
- Most chemicals require a rain free period – check the label for instructions
- Be aware of the local topographic and convective influences on wind speed and direction
- Record on-site weather conditions at the time of spraying.

Things to remember:

- Wind values mentioned in BOM forecasts and observations refer to the average wind over a 10-

minute period at a height of 10 metres.

- Optimal temperature and humidity conditions frequently occur in the early morning and into mid morning when conditions are not too hot or too dry.

How do I take measurements?

Hand held weather meters are an ideal tool for on-site weather recording. These meters are now relatively inexpensive and give the user all necessary weather information.

More sophisticated systems include automatic weather stations with data logging capabilities. These are more expensive, but can be very useful, particularly for larger enterprises or if you use pesticides regularly.



Where can I find out information about the weather?

The internet is a great source of information. Useful sites include:

- <http://www.bom.gov.au> for the home page
- <http://www.bom.gov.au/silo> meteorological information for rural industries
- <http://www.bom.gov.au/silo/products/meteograms> a 5 day weather outlook for a specific location (subscription only) – very useful for planning spraying activities
- <http://www.australianweathernews.com>
- <http://www.longpaddock.qld.gov.au>
- http://www.countryenergy.com.au/storm/s_tracker
- <http://www.weatherzone.com.au>
- <http://www.eldersweather.com.au>

Weather by fax

Online Directory

National Quick Reference Directory 1800 630 100

National Detailed Directory 1800 061 440

NSW and ACT Quick Reference Directory 1800 061 439

NSW and ACT Detailed Directory 1902 935 849

Call Charges - \$1.38 per minute incl. GST. (Higher if called from international, satellite or mobile systems)



Weather by Telephone

Telephone Weather Services Directory

National Telephone Weather Services Directory 1900 926 113.

NSW Full State Service 1900 955 361

ACT Services 1900 955 362

NSW Country Service 1900 926 102

Telephone Weather Services Call Charges - 1900 numbers: 77c per minute incl. GST; 1300 numbers: Low call cost - around 27.5c incl. GST.

(More from international, satellite, mobile or public phones)



Australian Rainman CD Rom

RAINMAN (Rainfall Information for Better Management) is a software package developed by the Queensland Department of Primary Industry (QDPI) using data supplied by the Bureau of Meteorology. It was designed as a management tool for people whose activities are significantly

affected by rainfall.

It gives information related to the probability of a certain amount of rain occurring at a particular time. It assists users to plan operations, such as spraying, when the situation is most appropriate.

A useful publication on weather and farming is: Bayley, Darren, (2000). Weather and Climate in Farming - Managing Risk for Profit. State of New South Wales - NSW Agriculture. ISBN: 0 7313 0530 2 (2000).

Please contact the *ChemCert* secretariat on phone: (02) 9387 4714 if you have any questions, suggestions, or comments. We would very much appreciate any feedback.

Dubbo TTT Workshop

Clockwise from right:

Jock Lees and Peter Arkle from *Syngenta* - sponsor of the Workshop; Harry Combellack from *Spray Smart Enterprises* discusses spray drift with trainers Bob Wythes and Graeme Harris ; Trainers VJ Boland and Sheryl Jarecki working hard.

