

The implications of a spray drift investigation

By Mary O'Brien, DEEDI

Biosecurity Queensland takes all complaints of spray drift seriously and as a result has recently created a state wide position which deals with a broad range of chemical use issues including spray drift. This position is based in Toowoomba and is held by Mary O'Brien (that's me). Part of the role is to assist inspectors with investigations and other chemical use work.



Mary O'Brien.

All complaints of spray drift are recorded and are confidential. Using the information provided, a decision is made on the appropriate actions to take, if any. Not all complaints received by Biosecurity Queensland are investigated. Reasons for this may include lack of sufficient information to indicate a breach of legislation or sometimes a complaint may not fall under Biosecurity Queensland's legislation so it may be referred to another department that is more appropriate to handle the matter.

To ensure you report your complaint to the right agency, please refer to the DEEDI website. To put it broadly, Biosecurity Queensland generally handles in-

cidents that involve damage to crops or livestock and matters of chemical misuse such as spraying in very poor conditions.

Will there be an investigation?

Due to the number of complaints received each year, Biosecurity Queensland may request you supply additional information before starting an investigation. Additional information is more than just your assumption or speculation – it may include a report from an agronomist, crop consultant or veterinary specialist. We will not commence a full investigation based on hearsay. Every complaint is different so has to be assessed individually. There is no 'one size fits all' model so it is impossible to say that when scenario A happens then the outcome is B.

What happens in an investigation?

An inspector will collect evidence by making enquiries with as many potential sources as they can. The job of the inspector is simply to gather the facts, work within the legislation and to be fair and impartial. They are not there to pass judgement on you or anyone else. We all make mistakes and inspectors know this so it does help us if you are cooperative and honest. Don't think the worst as not all incidents result in court proceedings. Biosecurity Queensland utilises a range of methods to achieve compliance which include education, providing assistance, advisory letters, warning letters and prosecution.

How can I protect or help myself?

There are many ways you can mitigate the risks of spray drift occurring from your spray events. Some of these include:

WHAT DOES BIOSECURITY QUEENSLAND DO?

Biosecurity Queensland is a business group within the newly formed Department of Employment Economic Development and Innovation (DEEDI). Part of the work that Biosecurity Queensland undertakes relates to matters of agricultural and veterinary chemical use. This encompasses a range of things such as promoting responsible chemical use, the licensing of contractors, sampling produce for chemical residues and investigation of complaints of chemical misuse.

Each year Biosecurity Queensland receives a considerable number of complaints of spray drift which sometimes causes significant damage to crops or livestock. Given the variety of variables involved and the potential for financial loss, spray drift investigations can be difficult.



Variations in droplets from different nozzles.

- Ensure you have the appropriate licences or permits if required;
- Choose the right chemical for the job;
- Read and comply with label instructions;
- Use appropriate nozzles for the job;
- Watch your speed and pressure;
- Watch your boom height;
- Measure the weather conditions frequently during applications;
- Keep good records;
- Do not spray when there is an inversion;
- Only spray when Delta T is between 2 and 8; and,
- Notify your neighbours when you plan to spray and about what sensitive crops you have.

Many producers do not keep adequate records as they believe good records will get them into trouble. My advice is that keeping good records will get you out of trouble more times than it will get you into trouble. Keeping good records shows due diligence which will benefit you in the long run. Irresponsible chemical use or blatant disregard of best practice will not be looked upon favourably. Use good judgement, be responsible and be a good neighbour regardless of how you get along because you both have the right to make a living.

How do I know if my records are good enough?

Be aware that some labels specifically require certain records, conditions and droplet sizes so unless you keep good records how will you demonstrate you have complied with the label? As a general guide I recommend using the 5WH (who, when, where, why, what and how) for record keeping. I should be able to look at your spray records and see what was done without you explaining them to me. It is important to include any extra notes about things that happened or you did. For example, if you stopped spraying because the wind changed or if you left a buffer strip then record it. No matter how good your memory is, this is important information that you may forget after a month or two.

- **Who** – person who did the spraying, who it was done for;
- **When** – times and dates (start and finish times can be really important);



Accurate record keeping is essential.

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Cotton symptom known as “witches’ hands”.

- **Where** – information that shows the location of the spraying (address, road names, farm name, block names or numbers, lot on plan, map and so on);
- **Why** – crop or situation that was treated and reason for treating (such as fallow, broadleaf weeds);
- **What** – details so the exact chemical can be identified (for example, full trade name, manufacturer, APVMA number, active ingredient) – writing glyphosate is not enough! and,
- **How** – weather conditions, nozzles used, speed, pressure, other label requirements and so on.

There is no set format for records, I don't care if they are written on match boxes and kept in a shoe box, as long as you have them and they can be understood.

Need some help?

Biosecurity Queensland is willing to assist chemical users in any way we can. I am happy to attend grower meetings or industry gatherings so please let me know if you have an event that I could be involved in.

Information about chemical use and spray drift can be found on our website www.biosecurity.qld.gov.au or you can contact the Call Centre on 13 25 23. Mary O'Brien (0428 108 647) 



Cotton symptom – drawstring puckering.

Proven chemical pumping system

The 12 Volt DC Sotera Chemtraveller chemical dispensing pumping system has provided reliable and market leading service to the Australian agchem industry since it's introduction in the mid-1990s.

In it's latest configuration, it is offered in five different models with two flowmeter options, with or without Micro Matic couplings, with models tailored to best integrate with individual budget and usage requirements. The range starts with the basic kit comprising pump, motor, frame, hoses, nozzle kit and battery cables, up to the 'one with the lot', including the unique 850 Series bulk air-sensing flowmeter and Micro Matic Coupler and Rinser. It is also available in 240 VAC versions.

What stands it apart however is the fact that the Chemtraveller, with its double-diaphragm pump, produces the highest flow-rate in its class, with a nominal rating of 50 litres/min of water, although like other pumps, this will drop with higher viscosity liquids. But unlike some other pumps used in these applications, it will readily handle the wide viscosity range of liquids found in today's herbicide and insecticide formulations, plus selected liquid fertilisers.

When the flowmeter variant is chosen, the most popular version is the unique Sotera 850 Series Digital unit, which has the ability to detect bulk air, unlike most other flowmeters.

This stops the meter counting when product flow ceases as the drum or IBC reaches empty and as bulk air hits the meter – a very significant factor in eliminating overestimation of the amount of chemical being dispensed and the flow on problems associated with under-dosing.

The meter can be easily pre-calibrated for many of the common chemicals using the Factor Chart provided, or alternatively it can be simply and individually calibrated to suit the product and temperature for even more accurate dispensing. 