



# Decontaminating spray equipment

Successful decontamination of a spray boom is vital to ensure herbicide injury does not occur to your crop and to avoid inadvertently reducing spray and equipment efficacy by mixing incompatible products. As well as decontaminating at the end of each day, this process should also be part of a general maintenance program for your boom to ensure that it is working efficiently.

The cleaning process takes time, as there are many steps involved, depending on the chemical application history of the boom. Spray tanks and booms generally need to sit overnight with the cleansing agent to be fully effective.



## **The following checklist can help you to minimise self-inflicted damage:**

- ✓ Flush out and clean at the end of each day's work. This makes cleaning much easier when changing between crop types.
- ✓ Clean and rinse the tank, boom and nozzle bodies thoroughly based on past chemical history, with an appropriate cleaning agent.
- ✓ Is your boom plumbed at the centre or at the ends? For centre plumbed booms, these can be harder to clean deposited contaminants (such as triazines, SC's) as it can be difficult to attain an adequate turbulence and velocity to dislodge deposits. Centre-plumbed booms should be cracked at both ends and an external high pressure water source used.
- ✓ Not all tank cleaners are the same. Different classes of chemistry need different types of cleaners, so make sure the product you are using is right for the job. Most product labels provide information on cleaning product information to remove residues.
- ✓ Replace contaminated rubber fittings from the tank, pump, boom and nozzles with decontaminated spares - this will include 'O' rings, diaphragms, hoses and seals.
- ✓ It is critical to decontaminate every water carrying part of the boom. No short or blind plumbing can be ignored, including induction hopper, input hoses, recirculating plumbing, and sight tubes.
- ✓ When purchasing spray equipment, always keep the decontamination process in mind. Does the design lend itself to a simple effective decontamination process with less wastage? It's worth considering.



## General cleaning procedure

### Step 1: Pre-clean

Choose an appropriate spot to clean-down and make sure you wear correct personal protective equipment. Drain the spray tank and lines thoroughly. Rinse the spray tanks, boom and hoses with clean water. Remove any visible deposits. Rinse all interior tank surfaces (e.g. lids and inner roof) for 10 minutes. Flush boom lines and drain tank.

### Step 2: First clean

Fill up the tank with clean water and an appropriate cleaning agent. Flush the cleaning solution through the line and nozzles for five minutes. If applicable, open the blind ends of the boom line sections. Stop flushing and add enough water to completely fill the tank. Agitate the system for 15 minutes. Several hours of soaking may be of benefit. Flush the system again and drain the tank completely.

### Step 3: Nozzle and filter clean

Remove filters, strainers and nozzles and clean with a detergent or cleaning solution in a separate bucket.

### Step 4: Final clean

Repeat step 2.

### Step 5: Rinse

Always rinse the tank and flush the boom, nozzles and hoses with fresh water. A thorough exterior clean with a pressure cleaner will help remove any final residues.

[Watch the CottonInfo video on sprayrig decontamination.](#)



**Top tip:** Once fully decontaminated, and the next spray load is mixed and ready, prime the lines over gravel or a grass verge. Leave for a small period of time and repeat before spraying over your valuable crop. Products that have solvents as carriers are the worst offenders for pulling Group I (Verdict etc) herbicides from a missed rubber seal or diaphragm. By doing this you are removing any solution that may still have product/solvent in it prior to putting on your crop.

## More detail and other resources

- The Grains Research and Development Corporation (GRDC) has published [this guide](#) to decontamination agents.
- This [GRDC GrowNotes publication](#) on spray application has information on decontamination (module seven). This information has also been summarised into a [fact sheet](#).
- [SataCrop](#) is a tool to mitigate the risk of spray drift by allowing operators to understand where sensitive crops are located in proximity to their spray operation.
- Check out **Keeping the spray on weeds** and the **24-hour risk profile for summer spraying** [here](#). Give careful consideration to the selection and application of all sprays.
- Read the Effective spray management chapter in the [Australian Cotton Production Manual](#).
- Nufarm's Spraywise Decisions® is a web-based tool which allows users to plan chemical application to forecasted weather conditions to encourage best practice. [www.spraywisedecisions.com.au](http://www.spraywisedecisions.com.au)

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