

General Instructions

- Equipment used for spraying agrichemicals for vegetation or pest control includes LUV's, utes, tractors, knapsacks and spray bottles. Each type of equipment could have a tank, a pump and a hose that is connected to a hand gun or a spray boom.
- Staff should not use any piece of spray equipment without first being trained in its use and having read the manufacturer's instructions. Visual checks should be carried out both before and after use to check that it is safe to use. Any faulty equipment must be taken out of service – tagged if good for repairs, and report to a team leader or manager if service or replacement is required.
- Agrichemicals must be stored and transported in accordance with the product label, NZTA regulations (dangerous good rule) and HSNO Act regulations.
- Ideally work in pairs when carrying out spray work. Ensure you always have some means of communication with you (i.e. cell phone, RT etc).



Significant Hazards

- Injuries or ill health from exposure to harmful chemicals that enter your body through ingestion, inhalation, or absorption. This can lead to sickness – nausea, light headedness etc. Some agrichemicals are extremely poisonous and can be carcinogenic or fatal in some concentrations. Always read the label and SDS for specific hazards.
- Agrichemicals coming into external contact with the body can cause irritation and inflammation. Contact with sensitive areas such as the eyes can cause serious harm such as blindness. Skin contact, especially on the hands and face can lead to accidental ingestion or absorption.
- Spray can enter the environment and harm non-target species. Always follow correct storage, mixing, application, and disposal procedures. Always check the weather forecast and environmental conditions before carrying out spray work.



Mandatory Training

- To mix and apply any agrichemical spray at work a person must hold a Growsafe certificate **or** be under the supervision of a Growsafe certified person. Care must be taken to ensure that people who don't hold Growsafe are only using low risk chemicals.
- Certified Handler training is required for certain hazardous substances, the SDS will specify if there is a requirement for this.
- Spills response training is required for anyone who handles or uses a chemical on site.

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Personal protective equipment

Always refer to the product label to confirm what PPE needs to be used for specific chemicals and application methods.



Planning spraying work

- Before spraying check the weather forecast for wind, hot weather, or rain. Consider spray drift, run-off, sensitivity of application area, dehydration and sun burn when planning the best time of day to spray.
- Refer to the product label for key requirements such as PPE, compatibility, application method and rate, hazards, first aid, spill response etc.
- Use the right application method for the size of the job and site. Consider terrain, spread/quantity of pest species, access, environmental conditions etc.
- Herbicide use records must be completed for all applications daily.
- Signs must be displayed to inform and protect the public. They may also include details of the chemical being applied, withholding periods and/or contact details for Auckland Council Centre (09 301 0101) or the site being sprayed.
- Adjacent landowners should be notified prior to any spray work close to park boundaries.
- Inexperienced staff should only work under the supervision of experienced staff.

Daily checks and maintenance

All equipment involved in the task should be checked prior to each use for condition and operation. Remember to check for:

Spray system:

- Leaks
- Hoses and clamps tight
- Nozzles
- Physical damage

Safety equipment:

- Wash water
- Hand sanitiser
- Spill and first aid kits
- PPE

Spray pump engine:

- Fuel (4 stroke)
- Oil level
- Air filter
- Secured

Mixing chemicals for spraying

- Only mix chemicals in a suitable, well-ventilated area that is designated for this task. Consider spills and take all proper precautions to avoid or minimise them.
- Read the product label prior to mixing.
- Wear PPE while mixing as specified on the product label. Concentrated chemical is normally more hazardous than spray solution.
- Use proper manual handling techniques when lifting heavy containers, seek help when required.

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1. Half fill the solution container (tank/knapsack/spray bottle) with water.
2. Measure out and add chemical using a measuring jug. The mix rates will be on the product label.
3. Pour the chemical into the container.
4. Repeat for any additives or dye.
5. Top up with remaining water required.
6. Secure lid firmly before pressurising or moving container.
7. Clean any spills using spills kits and rinse surfaces thoroughly.

Operating a knapsack sprayer

- To put on the knapsack, first lift it onto a ute deck, wall or other waist-high surface and put on the harness securely.
- Ensure the knapsack is pressurised and keep at a suitable pressure by pumping the side handle at regular intervals.
- Walk at the correct pace to ensure the correct application rate.
- If there is any wind, start at the downwind end of the site and work in an upwind direction so that spray drifts away from the operator and previously sprayed areas are not walked on.
- Monitor for spray drift continually to ensure non target areas, crops, plants, amenities, people, or waterways are not contaminated. Cease spraying if windy conditions make spray drift unavoidable.
- Knapsacks are not recommended for steep terrain or dense bush as they increase the risk of injury.

Vehicle spraying operation

- Calibrate for conditions and job required. For windy conditions reduce pressure and increase nozzle size.
- Continuous spraying - drive at an appropriate speed to achieve accurate coverage. In windy conditions move closer to the target area to reduce drift.
- Take care driving with a full tank where the liquid can move around and affect stability. Consider the terrain before driving as the weight of an un baffled and moving spray tank can shift the centre of gravity of the vehicle.
- Have beacon operating and lights on.

Cleaning spray equipment

- If there is unused spray in the tank find an area to use up the remainder of the chemical or tag it out of use and label appropriately. Where practical, use it for the next spray application rather than disposing of it.
- Rinse down spray equipment and vehicles to remove spray residue and dirt.
- Clean any in-line filters and spill trays.
- To clean spray systems – half fill the tank with water and add required quantity of cleaner (weigh out on scales) - run through the sprayer/lines/nozzles and rinse with fresh water.
- Clean all PPE - return mask filters to a sealed bag or container and wash the mask and other reusable items in hot soapy water.
- Any empty chemical containers should be triple rinsed and disposed of appropriately.

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Emergency Procedures - check your safety first

All incidents must be recorded in Donesafe as soon as possible.

Follow the Emergency Response Plan (Red Booklet) or the appropriate local procedure.

What to do if the following occurs:

| Incident | Action |
|------------------------|--|
| Minor cuts and scrapes | Use the First Aid Kit |
| Serious injury | Phone 111 and ask for Ambulance |
| Fire | Phone 111 and ask for Fire Service |
| Spillage and damages | Secure the Area. Contact supervisor and Health and Safety Business Partner |

Could this SOP be improved?

Discuss with your team leader or health and safety representative if you find any gaps, suggestions for improvement or issues while using this SOP.

PCF has a review process for continual improvement, and we appreciate your help and input.

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