



Procedure: Pest management

Purpose

The purpose of this procedure is to detail the process for managing pests and pesticides at the Australian National University (University). This Pest Management procedure ensures that legal and other obligations of the *Work Health and Safety Act, 2011 (Cth) (WHS Act)*, the *Work Health and Safety Regulations, 2011 (Cth) (WHS Regulations)* and the *Safety, Rehabilitation and Compensation Act, 1988 (SRC Act)* are defined for managing the health and safety of all workers. This procedure is linked to the Australian National University's Workplace Health and Safety Policy and is one of the WHS Management System Procedures located on the [Work Environment Group](#) web page.

Definitions

Authorised person is a person authorised by local management to undertake explicit pesticide operations. An authorised person must have the appropriate competency for the application to be undertaken. Also see competent person.

Local area is the relevant College, Research School or Service Division at the Australian National University.

Competent person is a person who has acquired through training, qualifications and experience the knowledge and skills to carry out the task. The following may be considered competent persons for this procedure: a pest control operator employed by a registered pest control firm; a horticulturist having studied pesticide usage; or a person having undertaken registered training in the management and application of pesticides.

Emergency Procedures are plans, established in advance, stating what action to take in the event of an emergency. These are used in order to minimise the consequences of an incident, such as injuries, or damage to property or the environment.

Exposure occurs when a person, property or the environment comes into contact with a hazard. The four routes of exposure for people are: inhalation, skin absorption, ingestion and inoculation.

Fumigation is the process whereby a fumigant is released within a controlled

target volume; it is one type of *pesticide application*.

Fumigant is a *pesticide* that has a significant vapour pressure at normal temperature and pressure.

Hazard is anything that has the potential to cause harm.

Hazardous chemical is any chemical substance that has the ability to release energy that is harmful to the health or safety of a person or the environment. This definition includes hazardous substances, dangerous goods, and scheduled drugs and poisons.

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (World Health Organisation (WHO) definition).

Health hazard is anything that can cause illness or disease. Exposure may occur over a short or long period of time.

Integrated pest management refers to the process of pest control within a defined tolerance level by the use of biological, physical and organisational factors, in addition to chemicals. The defined tolerance level is the level of pest infestation that has a significant deleterious effect on the primary objective (e.g. research project, economic viability, visual aesthetics). Biological factors would include the natural predators and parasites of the *pest*. Physical factors would include temperature, humidity, light and UV. Organisational factors would include isolation (glasshouses/pens/paddocks), insect screening of plants, restricted access of persons, pest-sensitive experiments in special facilities, and importantly, appropriate timing and quantity of any *pesticide application* to ensure effective pest control at their most damaging stage.

Pest refers to an unwanted biological entity; including animals, plants and microbes.

Pesticides are chemicals (or mixture of chemicals) intended to be used for the selective control of pests. For example, insecticides, fungicides, or rodenticides.

Pesticide application is the dispersal of a *pesticide* over a target area or volume. *Pesticide application* is the process whereby a solid, liquid or solution *pesticide* (with no significant vapour pressure) is dispersed to settle in the target volume; but the term also includes the process of *fumigation*.

Pesticide operation includes any or all of the processes of *pesticide* acquisition, storage, mixing, application, and disposal.

Risk is the likelihood that a hazard will cause harm in the given circumstances and the consequences if it does.

Risk control is a strategy that is implemented to eliminate or, if it cannot be eliminated, reduce the risk associated with an identified hazard.

Safety Data Sheet (SDS) is a document that provides necessary information about the toxicity, storage and handling of hazardous chemicals. These documents are produced by the manufacturer or importer of each hazardous chemical. SDS's are also available through the ANU chemical management database [Chemwatch](#).

Safe Work Method Statements (SWMS) are a set of instructions designed to communicate definite or standardised procedures to staff. These are used to obtain consistency in results and increase safety and efficiency in the workplace. Also known as Safe Operating Procedures, Protocols etc.

Procedure

Emergency information

1. Initially direct emergency queries to local area management, then Work Environment Group, HR Division (02) 6125 2193 or internal extension (x52193). The local area is responsible for coordinating any Emergency Services response.
2. After-hours, contact ANU Security on (02) 6125 52249 or internal extension (x52249).

Objective

3. This is the University's procedure for the management of pests and the safe handling of pesticides. It recommends an integrated pest management approach that is justifiable and effective, and lessens the risk to the University community and the environment of handling pesticides.

Exceptions

4. This procedure does not apply to an individual's application of a domestic pesticide in their home or use of personal outdoor insect repellents.
5. A *pesticide* does not include medical and veterinary pharmaceuticals or chemicals used in research under a medical or veterinary officer or other appropriately qualified worker.

Part 1 – Responsibilities

Director or delegated representative

6. The local area General Manager, Director or delegated representative is responsible for:

- providing, and maintaining appropriate facilities and resources to ensure a safe and healthy work environment;
- providing the necessary resources to access information on pesticides (**see:** [Chemwatch](#) database);
- providing the necessary resources to maintain registers and records (**see:** [Chemwatch](#) database);
- preventing the acquisition of pesticides by un–authorised persons. The acquisition of any pesticide is only to be undertaken on the written direction of an authorised person;
- providing the necessary resources to manage and dispose of pesticide wastes in an approved manner;
- providing appropriate personal protective equipment;
- ensuring a departure process is implemented, including transferring pesticide material responsibility and ownership; and
- ensuring a risk assessment process/system is implemented.

Building Custodian or delegated representative

7. The Building Custodian or delegated representative is responsible for:

- ensuring that pesticide operations are only undertaken within areas of their responsibility according to a pest management (treatment) plan;
- ensuring that pesticide operations are only undertaken by authorised or competent persons;
- informing staff (and other potentially effected persons) of the intention to use a pesticide and details of the application;
- maintaining regulatory registers and records (**see:** [Chemwatch](#) database);
- ensuring chemical material responsibility is transferred upon departing the University;
- managing and disposing of chemical wastes in an approved manner (**see:** [ANU Chemical Management](#) procedure); and
- reporting incidents according to [WHS Incident Management](#) procedure.

Gardens and Grounds, Facilities and Services

8. Gardens and Grounds, Facilities & Services (F&S), are responsible for:

- undertaking all pesticide operations within the grounds of the University not

allocated to a local area; and

- ensuring that such pesticide operations are only undertaken by authorised/competent persons.

Pesticide user

9. The authorised pesticide user is the individual responsible for the application of pesticides (i.e. contractor engaged by F&S). This person is responsible for:

- immediately reporting all injuries, illnesses or near misses to local area supervisor or F&S point of contact in accordance with the University's incident reporting procedure (see: [WHS Incident Management](#) procedure);
- adhering and contributing to a pest management (treatment) plan as authorised by local area management;
- adhering and contributing to safe operating procedures and guidelines to ensure not only their safety, but also that of fellow staff, students, contractors and visitors, and the environment;
- discussing with management or the local area delegated representative staff the [Pest Management Plan](#) and any hazards associated with pesticide operations, before commencing the application;
- refusing to undertake pesticide operations outside their expertise. Refer the concern to your Immediate Supervisor or F&S point of contact;
- using only registered (and hence approved) pesticides in their intended application. The use of other pesticides (i.e. those requiring a permit) shall be notified to and discussed with Work Environment Group (WEG) before acquisition or application;
- using appropriate facilities and resources to ensure a safe and healthy work environment;
- maintaining the pesticides register and log of applications;
- using personal protective equipment in the appropriate manner, as required by the relevant SDS (see: University's procedure on [Personal Protective Equipment and Clothing](#));
- taking part in the University's health surveillance program in accordance with the University's health surveillance policy and procedure, where relevant (see: University's [Health Surveillance](#) procedure);
- transferring chemical ownership when departing the University, according to local area and University chemical management procedures (see:

[Transferring Chemical Ownership](#)); and

- helping maintain the University's chemical inventory system or local area chemical register (see: [University Chemical Inventory System](#)).

Part 2: Pest management plan

10. A pest management plan shall be created and should include the following considerations:

- justification of the need;
- description of the pest problem and control options;
- definition of the target pest(s);
- (optional) site plan;
- pest control company contract details (if relevant);
- application of the principles of integrated pest management;
- the effect of the pesticide application on employees and on the environment;
- documentation (e.g. safety data sheet) of the toxicity, selectivity, specificity, persistence and biomagnification of the pesticide(s) to be used;
- safe work method statement (SWMS) or protocol documentation for the application;
- communication regarding a pesticide application;
- restricting access to ensure it is people-free during a pesticide application;
- details of isolation of building services, ventilation system, security, clearance of animals/foodstuffs/cosmetics, application method details, etc; and
- confirmation the area is safe before re-entry or re-entry after a suitable delay.

11. A [pest management plan](#) shall be available to relevant and potentially affected persons. WEG may review a [pest management plan](#) at any time.

12. Authorised persons or delegated representatives are encouraged to discuss their draft [pest management plan](#) with WEG before seeking local area management endorsement.

13. Staff concerned about pest control should discuss the issue with the appropriate authorised person, delegated representative or WEG (see: [pest management plan template](#)).

Part 3: Pesticide management

Requirements for pesticide acquisition

14. The following requirements shall be met for any pesticide that is acquired:
 - the pesticide is registered for use in the ACT;
 - the pesticide is supplied in the registered container and with the registered label;
 - the pesticide (or a component) is not listed on Schedule 8 of the Commonwealth's "Standard for the Uniform Scheduling of Drugs and Poisons"; and
 - the pesticide (or an ingredient) does not have an acute mammalian toxicity less than 5 mg/kg by ingestion or less than 10 mg/kg by dermal absorption.
15. No pesticide shall be acquired or held without a safety Data Sheet (SDS) for that pesticide being obtained and kept.
16. Pesticides requiring a permit must be approved by WEG before acquisition.
17. Only University employees who are authorised persons may be given the authority to acquire pesticides for the University. In this context, the term "to acquire" shall be interpreted widely and include the actions of requisitioning, purchase, gift, and loan.
18. Before purchasing pesticides, prospective users must conduct a risk assessment of the chemicals and their uses and develop a safe work method statement (SWMS). The following Guidelines are to be used:
 - See: [Guideline A OHS Chemical Risk Management](#) for details on conducting a risk assessment;
 - See: [Guideline B Risk Management for Chemicals](#) for a chemical risk assessment; and
 - See: [Chemical Handling Protocol](#) for a Step-by-Step guide to working with hazardous chemicals and developing chemical handling protocols.
19. Prospective approved users must obtain Safety Data Sheets (SDS), formerly Material Safety Data Sheets from the manufacturer or supplier. Most SDS are also available on the [Chemwatch](#) online database system. Staff should approach their local area WHS representatives for access to the [Chemwatch](#) system.
20. Hard copies of SDS's should be made available as part of the risk assessment, and a [Chemical Handling Protocol](#) completed before purchase.

Register of pesticides

21. A register shall be maintained for pesticides showing:
 - the pesticides held by the local area;
 - the pesticide's purpose;
 - the maximum quantity of each pesticide held at any one time (a six month supply is suggested as an appropriate guide to the maximum quantity held);
 - the date and quantity acquired, and
 - the date of complete use or disposal.
22. A [Register of Pesticide Acquisitions and Disposals](#) template is available.
23. Pesticide applications shall be recorded in a [Pesticide Usage Logbook](#).

Labelling pesticides

24. Pesticides must remain in the original container.

Warning. Do not remove a stock container's label.

25. If using a spray tank for application of the pesticide, label the spray tank with the commercial name of the pesticide it contains.

Facility for the storage and mixing of pesticides

26. Local areas that undertake to store and mix pesticides shall provide, in their area of responsibility, a facility designed for such activity. General features of this facility shall include:
 - Stored according to the requirements detailed in the relevant SDS;
 - an enclosed room or isolated building not occupied for any other purpose than pesticide storage and mixing;
 - concrete flooring, bunded to contain 100% of stored pesticide volume;
 - restricting access from unauthorised persons;
 - a labelled entry door with the Dangerous Goods Class 6.1(a) toxic substances and the Class 3.1 / 3.2 subsidiary risk label for flammable liquids (if applicable), and a NO SMOKING label;
 - appropriate dilution ventilation, lighting and safety shower in accordance with Australian Standard (AS) 2507 – The Storage and Handling of Pesticides;
 - impervious storage racks or cupboards for pesticide storage. Spill trays are also recommended for small containers;

- local exhaust ventilation (and preferably a fume cupboard) for use when diluting and mixing of pesticides; and
- a pesticide spill kit including; waste bins marked "WASTE", solid absorbent (e.g. commercial absorbent) for absorbing a liquid spill, and heavy duty polythene bags for containing spilt dry material. Any flammable pesticides in the facility shall be stored in accordance with AS 1940:2004 – The Storage and Handling of Flammable and Combustible Liquids.

27. Safety Data Sheets (SDSs) shall be provided and be available to the authorised persons for all pesticides stored in the facility.

28. Personal facilities such as lockers (for storing personal clothing and property), lunch room, hand basin, showers, etc. shall be sited away from the pesticide facility.

29. In routine circumstances, only authorised persons shall enter and work in the pesticide facility.

Personnel safety and protective equipment

30. Health and safety of authorised persons is influenced by both occupational and personal hygiene and by effective work systems for pesticide operations and emergency procedures.

31. To comply with the personal safety requirements of AS 2507 the following shall be available and suitable for the pesticide operations:

- protective equipment (which includes protective clothing);
- personal hygiene facilities (hand washing area, shower, eye wash);
- emergency communication; and
- first aid resources.

32. The WEG can provide advice on the appropriate personal protective equipment.

33. Protective equipment shall be issued and fitted to each authorised person. The pesticide person will be responsible for its cleaning and maintenance.

34. The local area shall provide a laundry service for the protective clothing used in pesticide operations.

35. Protective equipment shall be stored in an enclosed cupboard or separate room in or adjacent to the pesticide facility (See: [Requirements of protective clothing and equipment procedure](#)).

Medical monitoring

36. Each authorised person employed by the University shall be invited to participate in the health surveillance program if applicable (See: [Requirements of health surveillance](#)).

Disposal of pesticides and pesticide containers

37. All pesticide disposals shall be in accordance with legislative requirements and the University's [Chemical Handling procedure](#).

38. All mixed pesticide that is unused after an application shall be retained and used as part of the next batch made up. Ideally each pesticide should have a dedicated applicator.

39. All empty pesticide containers must be triple rinsed and punctured. The rinse water shall be stored in the dedicated applicator for that pesticide and used to make up the next batch. The rinsed pesticide containers shall be disposed of according to the procedures of the ACT Environment Act.

40. Disposal of many waste materials is covered in the University's Hazardous Waste documentation. Wastes must be collected in suitable containers only with other compatible chemicals

See: University's [Disposal of Hazardous Waste procedure](#), chemical waste collection in [suitable containers](#) and [compatible chemicals](#).

41. Hazardous waste safety officers with specialised knowledge on the disposal of chemicals are located in many areas on campus. If a Hazardous Waste Safety Officer is not able to resolve an issue related to waste chemicals, the issue should be referred to WEG. The Hazardous Waste Safety Committee oversees the University's waste chemical processes (See: [Hazardous waste safety officers](#), [Hazardous Waste Safety Committee](#) and the [Work Environment Group](#)).

Incident reporting

42. The reporting of incidents, significant exposures and dangerous incidents assists the University community avoiding repeated incidents. All incidents involving the storage and handling of pesticides at the university must be reported via the University's on-line Incident Notification Form (See: [University's on-line Incident Notification Form](#)).

Emergency procedures

43. Potential emergencies shall be considered in the storage and handling of pesticides BEFORE any pesticides are used. Local and University emergency procedures should be considered (See: [University emergency procedures](#) and

Chemical Handling Protocol).

44. All authorised persons must be familiar with the First Aid Procedures for exposure to pesticides. First Aid Procedures should take into account:

- unusual or unique first aid or medical treatments
- specific treatment items must be obtained before handling the chemicals that require the specific treatments and
- awareness or education of First aid officers in the requirements for, and locations of, unusual or unique treatments.

45. Appropriate types and amounts of spill containment resources and absorbing materials shall be made available before commencing any procedure with pesticides.

46. The risk of fires and adverse chemical reactions should be identified and appropriate risk reduction measures employed.

Training obligations/courses

47. WEG runs chemical safety courses. Some local OHS Committees have made these courses compulsorily for new chemical users. Local induction must cover aspects of pesticide safety and management requirements for relevant staff. Specific pesticide handling training is available through external register training organisations (See: [Chemical safety courses](#), and [Work Environment Group](#)).

Sources

This procedure is governed by Commonwealth and ACT legislation and regulatory obligations, and relevant Australian Standards and codes of practice as detailed in Table 1 below:

Legislative and Regulatory Obligations
Work Health and Safety Act (2011) & Work Health and Safety Regulations (2011) (C th)
ACT Medicines, Poisons and Therapeutic Goods Act 2008.
Agricultural and Veterinary Chemicals (Administration) Act 1992 (the Administration Act)
Agricultural and Veterinary Chemicals Code Act 1994 (the Code Act) scheduled

to which is the Agricultural and Veterinary Chemicals Code (the Agvet Code)
ACT Environment Protection Act 1997
AS 2476:2008 – General Fumigation Procedures
AS 2507:1998 – The Storage and Handling of Pesticides
Poison Standard 2010, Standard for the Uniform Scheduling of Drugs and Poisons
Pesticides Section, Department of Primary Industry, <i>A Manual of Safe Practice in the Handling and Use of Pesticides</i> , AGPS, Canberra, 1980
<i>Safe Use of Pesticides</i> , Occupational Health and Safety Series, No. 38, International Labour Office, Geneva, 1977
Pesticides Section, Department of Primary Industry, <i>A Manual of Safe Practice in the Handling and Use of Pesticides</i> , AGPS, Canberra, 1980

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