

## 8.4 Wool press

### Hazard identification

The *press* applies force to the wool via a *platen*. As the platen moves, if it is inadequately guarded, there is a possibility of workers body parts being trapped between the moving mechanisms. Additionally, hydraulic hoses, which burst under pressure, can result in injuries from the hydraulic hoses and fluid.

#### Areas for risk assessment:

Emergency stopping

#### Example control measures:

Ensure the wool press is fitted with a functioning trip bar or other emergency stop that stops operation of the press if bar is "tripped" by an operator or other worker.

After market kits may be available to do this for some presses

Ensure the press does not restart when emergency stop is released. Starting of the unit should only be possible from the control panel.

Guarding

Provide a fail-safe system to prevent injury if the platen support system fails while the platen is in the top position, particularly in older presses.

Ensure the wool press is fitted with a functioning fail-safe interlocking door mechanism that prevents operation of press without doors being fully closed.

Press doors

Ensure doors cannot cause injury when opening.

Space

Place press where convenient for use but not obstructing the work of others.

Maintenance

It is illegal to bypass, disconnect or remove any safety devices.

Maintain wool press as necessary and ensure guards are functional.

Inspect hydraulic lines before operation and replace worn lines.

Before operation, ensure wool press is checked for protrusions and sharp edges and repaired if necessary.

Training

Ensure presses are operated in compliance with the manufacturers' instructions and only by those workers trained and experienced in their use.

Ensure safety issues, particularly emergency stopping, are included in presser training.

# 9. HAZARDOUS SUBSTANCES AND DANGEROUS GOODS



Under the OHS Regulation 2001 Chapter 6, employers and self-employed persons have specific obligations with hazardous substances and dangerous goods. These include:

- provision of Material Safety Data Sheets (MSDS) - available from suppliers and manufacturers - these provide hazard and safety information
- ensuring that containers holding a hazardous substance used at work, are appropriately labelled and that the label is not removed, defaced or altered
- ensuring that certain hazardous substance are NOT used for certain purposes referred to in the Regulation (part 6.4)
- providing health surveillance for each employee who is exposed to certain hazardous substances if there is a risk to the health of the employee as a result of that exposure
- ensuring that a register is kept and maintained for all hazardous substances used at the employer's place of work
- recording the results of a risk assessment relating to the use of a hazardous substance.

## 9.1 Hazardous substances



The *Pesticides Act 1999* (replacing the older *Pesticides Act 1978*) became operational from 1 July 2000. The new Act introduces many new and strengthened provisions to significantly improve the management of pesticides in NSW.

### Hazard identification

Many pesticides used in parasite control in the sheep industry are classed as hazardous substances. Other hazardous substances that require careful management and may be stored or used around the wool shed include; herbicides, crop insecticides and rodenticides.

Such activities should only be done by workers who have been properly trained in safe use of the chemicals. Operations using these chemicals should be done outside the shearing shed. Accordingly, these operations are beyond the scope of this publication but further information is readily available (Appendix 1 - further information)

Although chemicals should be applied outside the shed, there are still risks inside from:

- preparation and clean up
- contamination and disposal including spray drift and residues (Section 10.2)
- storage including spillage, fumes and combustibility.

Chemical hazards in the shed can be identified from the labels on containers and the MSDS for the chemicals in use and carrying out the formal risk assessment and management process.

#### Areas for risk assessment:

Presence of hazardous substances

#### Example control measures:

Do not apply any chemical to the sheep inside the shed.

Eliminate the need for chemicals by removing/reducing the pest problem by changing management practices or bloodlines or using biological controls or eradication programs e.g. footrot.

Consider the range of options to reduce pest burden including Integrated Pest Management and the use of less toxic chemicals to complete a given task.

Using a safer form of the chemical i.e. replacing a liquid with a granular formulation to reduce risk of splashing/spillage.

Disposal

Remove all unwanted/ out of date/ currently banned/ hazardous substances from the vicinity of the wool shed and store/dispose of in accordance with current guidelines (contact the Environmental Protection Agency - see page 80).

Storage

Store pesticide containers, equipment and clothing away from the wool shed and in accordance with pesticide regulations (contact the EPA).

Level of exposure

Keep chemical storage and preparation activities away from shearing activities either by distance or physical barriers.

Design and locate jetting and like systems to ensure that spray does not drift into the shed.

Take into account the *withholding period* for any chemicals applied to sheep. This means no worker should be exposed to a chemical for a certain period after application.

The shed owner should also ensure that the shed has no residues of chemicals in it. Any grain or seed stored in the shed may have pesticides residue to which various workers may be exposed, and so should be controlled.

#### Working Procedures

Ensure all hazardous substances are used in accordance with safety directions on the label, Material Safety Data Sheets or industry guidelines.

Only allow individuals who are required for the job to be in the operational area. Try to schedule chemical applications in adjacent yards when the shed is not busy.

Prohibit eating, smoking and drinking when chemicals are in use.

Provide and ensure the use of, facilities for effective decontamination such as washing facilities and gear to clean up spillage.

*Raddle fly-struck* sheep for later treatment outside of the shed.

Do yard tasks at the most appropriate time of the day to minimise heat stress and spray drift, particularly towards the shed.

Establish procedures for disposal of waste and containers.

Provide separate decontamination and washing facilities for workers who have been using chemicals and where the chemical manufacturer or importer has recommended specific handling or decontamination procedures.<sup>8</sup>

Training

Ensure all employees who handle/ use pesticides have completed appropriate training in chemical usage eg an accredited Chemical Users course.

Personal Protective Equipment

Ensure all relevant safety equipment is available to workers and in good operating condition. See Section 9.3

Use the correct protective equipment in the recommended manner for the task.

Use only PPE with an appropriate Australian Standard Number to suit the task.

Use labels and MSDS as a guide to level of protection needed. If in doubt, ask the supplier/manufacturer.

## 9.2 Dangerous goods<sup>9</sup>

#### Hazard identification

Dangerous goods are classified based on their immediate physical or chemical effects such as fire, explosion or poisoning. Dangerous goods that may be found around the shed include LPG, fuel for generators or compressors, paint and solvents.

<sup>8</sup> See also the advice in the Code of Practice for the Safe Use and Storage of Chemicals in Agriculture

<sup>9</sup> Further information: Australian Standard AS 1940 "The storage and handling of flammable and combustible liquids" 1993" 53



The Dangerous Goods (General) Regulation 1999 contains provisions regarding legal requirements for:

- licences and permits
- dangerous goods
- explosives
- keeping of dangerous goods
- conveyance of dangerous goods
- marking and placarding of dangerous goods
- packaging of, and containers for, dangerous goods

Dangerous goods should be clearly labelled as such. Look for dangerous goods used or stored in or around the shearing shed. If they are, has there been the risk management process of consultation, identification, assessment, and control?

#### Areas for risk assessment:

##### Storage

#### Example control measures:

Do not store dangerous goods in or around the shearing shed. If they are, employers should go through the risk management process and follow the requirements of the Standard.

Do not store dangerous goods within recommended distances of any other combustible substance.

Do not store dangerous goods in or near stairways and doors.

Do not use unapproved containers.

Do not use unlabelled containers - especially drink bottles.

Do not allow anyone to use the dangerous goods unless they know the risks and required safety precautions. Read Material Safety Data Sheets and product labels.

Do keep out of reach of children.

##### Spillage

Put controls in place to prevent spillage reaching open drains, other buildings or ignition sources. Spillage should be cleaned up immediately using procedures appropriate to the substance.

##### Heat and sun

Keep containers away from heat that can cause a pressure build-up or result in expansion and contraction, resulting in leakage of the container.

##### Ignition sources

Vapours can escape if containers are opened or leaking, so flammable and combustible substances should be kept away from sources

of ignition. Ignition sources include naked flames, electrical equipment and the sparks from the grinder.

#### Decanting

Only do pouring or siphoning in a well-ventilated area away from ignition sources and preferably outdoors.

## 9.3 Personal protective equipment

If measures taken by an employer to control a risk include the use of personal protective equipment, the employer should provide each person at risk with personal protective equipment and ensure that the:

- equipment provided is appropriate for the person and controls the risk for that person
- person is informed of any limitations of the equipment
- person is provided with the instruction and training necessary to ensure that the equipment controls the risk for the person
- equipment is properly maintained and is repaired or replaced as frequently as is necessary to control the risk for the person
- equipment is provided in a clean and hygienic condition to the person
- equipment is stored in a place provided by the employer for the purpose
- areas in places of work where personal protective equipment should be used are clearly identified.

Much information, including Australian Standards, is available elsewhere concerning PPE. One information source that might be especially useful is HB 9 - 1994 Occupational personal protection, available through Standards Australia.

# 10. ANIMALS AND DISEASE

## 10.1 Yarding sheep for shearing

### Hazard identification

Look at the design and maintenance of yards, pens, races and other sheep handling equipment (Section 5) for hazards reducing the ease of movement of sheep. If sheep cannot flow freely through the yards and shed or readily escape, it will take extra effort on the part of workers to get the job done. This also increases the opportunity of crush or collision injuries from the sheep. The sheep themselves can cause an injury or, a work practice such as drafting, may increase the chance of manual handling or crush injuries.

Look at worker training and experience, suitability of clothing and for any other aspects of operations that may present a degree of risk.

Areas for risk assessment:	Example control measures:
Design and maintenance	Ensure that the design and maintenance of yards, pens, races and other sheep handling equipment does not expose workers to risk of injury by the stock.
The sheep	<p>Most types of sheep should be yarded for at least four hours before being shorn to overcome any fullness or sweat. Bigger or fatter sheep may require even longer. This reduces manual handling risks.</p> <p>Take particular care when working with rams and ewes with lambs as they may behave unpredictably.</p>
Work practices	Train workers involved in yarding to carry out their roles efficiently and safely. Keep on-lookers and untrained people out of harms way.
Personal Protective Equipment	<p>Yard workers should wear clothing appropriate to the task. Wear appropriate work boots or other solid shoes and long pants when moving amongst sheep.</p> <p>Provide or ensure use of broad brimmed hats and other sun protection.</p> <p>Drenching and other chemical operations are outside the scope of this document but have specific important PPE requirements as described in the relevant Codes. (See also pp. 51, 55, 82 of this document)</p>

## 10.2 Residues

### Hazard identification

Pesticides applied to the sheep to control flystrike and lice may remain as residues on the wool. At shearing there is potential for those chemicals to be passed on shearers and other shed workers through skin contact with treated wool.



**The Wool Withholding Period (WWP) is the amount of time required to elapse between treatment with insecticides and shearing. This is equivalent to the Wool Handling Interval (WHI). All ectoparasiticide labels should refer to the wool withholding period, which is binding on the user.**

If withholding periods are adhered to, the risk of residues at shearing should be low. The risk will be higher to those workers if it is unavoidable to work stock during the withholding period. However, repeated low-level exposure for workers moving from shed to shed should also be considered. (See also Section 9.1).

In 1999, the National Registration Authority (NRA), which is responsible for registering all agricultural and veterinary chemicals, began reviewing the wool withholding periods for most fly and lice chemical treatments<sup>10</sup>. Not all registered products display a WWP but it is a requirement for all new registered products to state the wool withholding period on the label.

The NRA has set a default WWP of two months for all long wool fly and lice products that do not state the withholding period on the label.



**As labelling of chemicals is often inadequate, particularly for older chemicals, employers should actively seek information from suppliers, manufacturers and other organizations eg NSW Agriculture<sup>11</sup> and ensure workers are made aware of it.**

If the manufacturer does not provide any such information on safety labels then the shearer will not know if handling the sheep is safe. Since the manufacturer, farmer and contractor should provide a safe and healthy workplace then any operation involving chemicals should be reasonably guaranteed to be safe. Shearers and all other members of the team should ask for this information. The farmer and contractor should personally be asked to ensure such safety.

The National Occupational Health & Safety Commission publish Guidelines for Conducting a Health Risk Assessment of Sheep Ectoparasiticides for Wool and Sheep Handlers.

### Areas for risk assessment:

Safe application

### Example control measures:

Any chemicals applied to sheep should take account of the withholding period. No worker should be exposed to a chemical for that period after application.

Use less dangerous chemicals.

Do not apply chemicals to the sheep in the shed.

<sup>10</sup> Further information, contact (02) 9577 7548  
<sup>11</sup> <http://www.agric.nsw.gov.au/reader/7634>

#### Controlled administration

Ensure workers understand written instructions and labels

Ensure chemical application gear is properly calibrated, maintained and operated, to deliver only the required dose.

Encourage use of more controlled ways of administering chemicals. Jetting, showering or striping/back-lining are preferred to older, less precise methods such as immersion/plunge dipping.

#### Working procedures

Plan treatment of sheep with an adequate interval until shearing or treat sheep off shears if appropriate.

Get involved with Lice and Fly control groups to more co-operatively address the problem and reduce the need for chemicals.

Control sheep blowfly through integrated pest management.

Have MSDS available for all chemicals used.

#### Personal Protective Equipment

See the general PPE consideration in Section 9.3.

Details on operations like drenching and other chemical applications are outside the scope of this document but have specific important P.P.E. requirements as described in the relevant Codes. (Section 9).

Waterproof over-pants may be an option when working in yarded mobs of sheep, particularly in wet weather.

Users of agricultural or veterinary chemical products should always read the label and any permit, before using the product, and strictly comply with the directions on the label and the conditions of any permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit because of any statement or omission made in this publication.



#### Terms you should know

**Export Slaughter Interval:** *ESI* - the minimum suggested time interval that should elapse between the last treatment of an animal, including consumption of treated feed, and slaughter for export.

**Restricted Entry Interval:** *REI* - the time immediately following a pesticide application when entry into a treated area is restricted (usually to a crop).

Re-entry period: 1) The mean number of days for the chemical residue to decay to a safe level.

2) Time that must pass before entering a treated area without PPE. (usually to a crop).

**Withholding period (meat):** The minimum period - under Australian law - that must elapse between the last treatment of an animal, including consumption of treated feed, and slaughter for human consumption in Australia (see "ESI")

**Withholding period (wool):** *WWP* - the time required to elapse between treatment of wool with insecticides and shearing. Also known as the Wool Handling Interval (WHI).

## 10.3 Size and type

### Hazard identification

Increases in body and fleece weight have added to the overall effort required to manoeuvre sheep during crutching and shearing. This trend for breed enhancement will continue and has implications for injury, particularly manual handling.

#### Areas for risk assessment:

Shed design

#### Example control measures:

Make appropriate shed modifications, such as enlarging let-go chutes and changing the batten orientation in the catching pen.

Minimise the requirement for lifting and dragging by completing relevant modifications of pens (Section 5.6).

Make partitions between the board and the catching pens high enough to prevent the sheep from seeing movement on the board, making penning up easier.

#### Work Practices

Manage dogs and other distractions to not obstruct shearers or startle sheep, resulting in collisions or escapes inside the shed.

Develop and use work practices that minimise risk from the size and type of sheep being worked.

## 10.4 Zoonoses

### Hazard identification

Zoonoses are diseases and infections transmitted between certain animals and humans. Such diseases are usually caught from physical contact with infected sheep, their products or secondary hosts such as dogs. Cuts, scratches and grazes, from crutching/shearing activities, are a common avenue for infection.

Sheep shearers are most at risk of contracting Q Fever, hydatid infection, orf/scabby mouth and bacteriological skin infections known as "*yolk boils*". In the majority of cases, the infection is limited to the affected individual, with person-to-person transmission rare. Look for the circumstances under which zoonoses are a threat and their symptoms (Appendix 4).

The best approach for prevention of occupational exposure is to eliminate contact with infected animals.

#### Areas for risk assessment:

Level of contact

Working Procedures

#### Example control measures:

Identify and remove infected sheep.  
Worm dogs to control hydatid tapeworms.  
Minimise handling dogs to prevent cross-infection with other worms.

Ensure hand washing facilities and soap are available and used by all workers.  
Make workers familiar with symptoms of zoonoses (Section 10.4)  
Pregnant women should avoid working with sheep during the lambing period. When spontaneous lamb abortions occur additional precautions should be taken during sheep work, such as the wearing of gloves, hand washing and the use of disinfectants.  
Make disinfectant available for use in the wash up water of combs and cutters.  
Assess if the working conditions require Q Fever and tetanus vaccinations.  
Where possible minimise the number of wet sheep to be shorn.

### 10.4.1 Flesh Needles

#### Hazard identification

Flesh needles are a sharp sewing type needle about 75 mm long. They are used to stitch cuts to the sheep inflicted during shearing. There may be a chance of transmitting disease through the current practice of shearers sharing flesh needles between sheep.

#### Areas for risk assessment:

Disinfection

Work practices

#### Example control measures:

Place a container of effective disinfectant on the shearing board to thoroughly wash the needle and attached thread before and after use.

Ban the practice of sharing needles. Each shearer should have their own needle and disinfectant container.

# 11. WORKING ENVIRONMENT

## 11.1 Electrocution

### Hazard identification

Electric shock occurs when a person becomes part of an electrical circuit and the current flows through their body. Injury and death can result from equipment becoming "live" due to electrical faults or lack of appropriate maintenance or unlicensed electrical work. There are two aspects to consider;

- the direct effects of electric current on the body
- the indirect effect of a shock causing the body to react and come to harm eg falling from a ladder.

Check to ensure electrical fittings, fixtures, wiring, insulation, switches, power cords, plugs, guarding, plant and equipment, particularly welding gear are in good condition and regularly maintained.



**All electrical installations and any modification or maintenance must comply with relevant current State Regulations and Australian Standards.**

Electricity can be provided by a fuel-powered generator. Are generators designed for outdoor/dusty use? Are cables kept in good condition/inspected and tagged, particularly those used for shearing plant if applicable? Have the dangerous goods risks been assessed and controlled?

Examine placement of electrical cords. Can they be run over by bale trolleys or mobile presses or frequently stepped on? Could back harness fixings come into contact with them?

Shed fuse boxes should be inspected and professionally fitted with a residual current device (RCD) or safety switch where possible.

Shearers may provide their own grinders and under the OHS Regulation 2001 are obliged to ensure the safety of anybody using them.

A recommended safeguard against electrocution on farms is the residual current device (RCD) or safety switch. An RCD can be installed in a fuse-box in the house, shed or workshop, or a portable RCD can be used with individual power tools. The electricity supplier or electrical contractor will be able to help with specific farm power requirements. Remember, while an RCD should shut off a lethal dose of electricity, it does not prevent electric shock. Live contact must be avoided.

#### Areas for risk assessment:

Maintenance and repairs

#### Example control measures:

Make all electrical fittings, fixtures, wiring, insulation, switches, power cords, plugs, guarding, plant and equipment, (particularly welding gear) safe, using a licensed electrician when necessary.

Equipment

Implement "locking out" of equipment - This is one way of preventing machinery or electrical current becoming operational during maintenance or a halt in the work procedure. A lock is attached to the machine switch so that it cannot be turned on inadvertently.

Clearly mark machine controls so that a person who is unfamiliar with the machine would be able to turn it off in an emergency.

Effectively earth all bench-mounted equipment, such as power saws or grinders - except for those with double insulation.

Leads and plugs

Do not use double adaptors, use plug/power boards instead.

Replace anything damaged or frayed. Any exposed live wire can cause fire or electrocution.

Ensure extension leads placed on the ground are not exposed to mechanical damage.

Where practicable suspend all power cords from above.

Use weather-proof outlets and fittings where appropriate.

Fit wire guards to all lights exposed to breakage.

Working procedures

Always switch appliances off at the wall and remove plug from socket before cleaning.

Never keep or use electrical appliances where they may be exposed to water.

Have electrical appliances checked regularly.

Always use a licensed electrician for repairs.

If a fuse blows out or RCD trips out, turn off the switch and check the electrical equipment being used before replacing the fuse wire or resetting. If it happens again, call an electrician.

When replacing a fuse wire, make sure its rating is correct for the circuit.



AS 3760 indicates that equipment connected by fixed wiring and large stationary equipment connected by a flexible cord which is flexed during normal use or exposed to abuse or damage in a hostile environment, is considered to represent a hazard sufficient to warrant routine in-service electrical safety testing. Accordingly, the testing of such equipment is required by this Standard.

## 11.2 Noise

### Hazard identification

Noise Induced Hearing Loss (NIHL) is a common injury associated with agricultural production. Excessive noise for long periods at work can cause deafness.

Hearing problems usually develop slowly so employees often do not realise the damage that is being done. However, extremely loud noises (for example, from gunshots or explosive-powered tools) can cause immediate and permanent damage. (Table 4)

Noise is measured in decibels (dB). Sound meters are usually fitted with a filter whose response to frequency is a bit like that of the human ear. If the "A" filter is used, the decibels are given in units of dB(A).

A simple rule for hazard identification in the workplace is, **if you have to raise your voice to be heard then it is too noisy**, and control steps need to be taken. The risk of permanent hearing damage is related to both the loudness of the noise and the length of exposure - so levels of noise in the workplace AND time of exposure to that noise should be assessed where possible.

To solve any noise problem the following needs to be established:

- *source* (where the noise comes from)
- *pathways* (how the noise is conveyed to the receiver).



The OHS Regulation 2001 Clause 49 states that an employer must ensure that appropriate control measures are taken if a person is exposed to noise levels that:

- exceed an 8-hour noise level equivalent of 85 dB(A), or
- peak at more than 140 dB(C).

The measurement is to be made in accordance with AS/NZS 1269.1:1998 Occupational noise management - Part 1

#### Areas for risk assessment:

The shearing machinery itself, particularly the long and short guts in the ferrule as well as the drive cogs.  
Wool presses, grinders.  
Radio/cassette/CD players.  
Corrugated iron walls or metal in races, which tend to keep the noise reverberating within the shed.

Motors, generators, compressors, hydraulic pumps

Animals

Working Procedures

Personal Protective Equipment

#### Example control measures:

Repair and maintain machinery, particularly overhead gear, to eliminate noise from vibration or uneven running.  
Purchase 'quieter' equipment.  
Eliminate or modify the noise source e.g. turn off the press when not in use.  
Utilise effective sound absorbing materials /mufflers on noisy equipment/ machinery.  
Put up sound barriers (walls) between workers and the source of the noise.  
Place any noisy equipment in locations that enable noise to dissipate such as close to open doors/ windows if appropriate.

Locate internal combustion engines/ motors outside of the shed and use effective sound absorbing material to limit noise.

Reduce the time that ewes are separated from lambs, or goats, are in the shed.  
Discourage excessively barking dogs.

Limit the use of loud broadcasting devices, eg. radios.

Limit time spent continuously working on noisy equipment.

Wear hearing protection when necessary. The employer should provide appropriate PPE to his/her workers and training in its use. The shed owner should provide signage that such required PPE is to be used.

Table 4 - Noise sources and levels

Typical noise source	Typical Farm Noise Levels dB(A) at operating distance	Time required to exceed regulatory limit
Quiet countryside	30-35	No limit
Conversation	60-70	No limit
Grain Auger or Header	85-95	8 hrs (at 85 dB)
Angle Grinder	85-95	4 hrs (at 88 dB)
Motorcycle - 50 kph	90-95	48min (at 95 dB)
Tractor - idling	75-80	No limit
- working (no cab)	95-100	15min (at 100 dB)
- working (cab)	75-85	26 hrs (at 80 dB)
Chainsaw - idling	80-90	2.5 hrs (at 90 dB)
- cutting	105-120	1 minute (at 112 dB)
Pig shed feeding	95-105	5 minutes (at 105 dB)
Shotgun firing	140+	Instant damage

Source: Modified by WorkCover NSW using formula in AS 1269 from Farmsafe NSW - Don't Let Farm Noise Destroy Your Hearing

## 11.3 Temperature

### Hazard identification

The range of extreme climatic conditions under which working with sheep is undertaken, can have significant impact on the health of all workers. Prolonged exposure to heat and cold can lead to fatigue, lowered concentration, slowed reflexes and loss of physical co-ordination. Any one of these things increases the possibility of an injury occurring. Workers should be able to function efficiently both physically and mentally to sustain work practices that will not place them at risk. If exposure to extremes of temperature leads to fatigue or discomfort, this could impair decision-making and affect the ability to follow safe working procedures. In particular, look for heat stress and heat stroke as specific problems.

You should refer to the WorkCover Code of Practice for Work in Hot or Cold Environments for specific guidance on identifying, assessing and controlling risks of work in hot or cold environments.

### 11.3.1 Heat

### Hazard identification

Although there is no absolute limit for a 'safe' temperature in the International Standard on Heat Stress (ISO 7243), shearing involves prolonged strenuous work often at potentially dangerous high temperatures. Heat stress and heatstroke induced by dehydration can be life threatening. All involved need to be alert for symptoms of heat stress and aware of how it may be prevented.

The symptoms of heat stress include irritability, tiredness, inattention and muscular cramps. In cases of heat stroke, sweating will stop and body temperatures will be high, the skin will be hot and dry and the individual may be confused or unconscious.

Employers can reduce the risk of heat stress in workers by developing in consultation an agreed plan for working in the heat.



An employer must ensure that:

- adequate ventilation and air movement is provided in indoor environments that may become hot, and
- appropriate work and rest regimes relative to the physical fitness, general health, medication taken and body weight of each employee exposed to heat are implemented.



#### Areas for risk assessment:

Agreed plan for working in the heat.

#### Example control measures:

The working plan should include;

Change work locations to shady or cooler areas of the yard and scheduling tasks to the cooler part of the day where this is possible.

Ensure workers take short breaks in a cool, preferably air-conditioned, area.

Provide cool drinking water, usually less than 16°C. Have a means of cold-water storage (refrigeration).

Place vents strategically at or near the ridge of the roof.

The exterior colour or finish should reflect rather than absorb light. This will reduce radiant heat from the roof and walls.

Blinds on all windows and skylights should be available, taking care not to reduce ventilation.

Ensure temperature controls and ventilation like blinds, hatches and vents are adjustable and adequate for local climates.

Adequately insulate the shed.

Provide shade trees and windbreaks close to the shearing shed and sheep yards.

When designing and constructing the shed, consider factors such as the height and path of the sun, the prevailing winds and local climate.

Make sure appropriate windows (that open and close) are adjacent to work areas.

#### Natural ventilation

Design or modify shed to allow natural air currents e.g. elevate sides of shed.

Provide an exhaust air duct above each work station, possibly with wind driven rotor at the top.

#### Artificial ventilation/cooling

Provide rotating ceiling fans. The control of the body temperature is best achieved by the evaporation of sweat. Air movement enhances the rate of sweating. Overhead fans with long (1400 mm) blades with a high pitch angle (over 10 degrees) and wide blade tips are the most effective.

Overhead fans should be located so that workers cannot come into contact with them.

Consider evaporative air-cooling with a portable system shared between buildings/sheds as required.

#### Heat stress and heat-stroke

Make all workers aware of the symptoms, cause and treatment of heat stress and stroke.

Treat symptoms by rest in a cooler environment and water intake. Seek medical advice for workers showing signs of serious heat illness.

#### Working Procedures

Encourage workers to drink at least one cup (200 ml) of water or juice before, during (if practical) and at the conclusion of each run. Coffee, soft drink or tea should be avoided, as these increase urine formation and excretion, thereby increasing the amount of fluid that is lost. In hot conditions, fluid intake should be approximately one cup of water or juice for every 20 minutes of work time.

#### 11.3.2 Cold

##### Hazard identification

Work in cold conditions has multiple hazards including direct risk of illness; aggravating effects of manual handling on cold muscles and vibration from tools or equipment. Air temperature below 24° Celsius may aggravate problems arising from tools that cause significant hand-transmitted or whole body vibration.



##### An employer must ensure that:

- employees exposed to cold have adequate access to heated or sheltered work areas and warm clothing or other personal protective equipment, and
- appropriate work and rest regimes relative to the physical fitness, general health, medication taken and body weight of each employee exposed to cold are implemented.

#### Areas for risk assessment:

Sources of cold stress

#### Example control measures:

When designing and constructing the shed, consider factors such as the height and path of the sun, the prevailing winds and local climate.

Do not position fans directly above shearers, to avoid down draught on a shearer's back.

Ensure temperature controls eg insulation are adjustable and adequate for local climates. Ensure windows adjacent to work areas can be closed.

Provide windbreaks close to the shearing shed to reduce cold wind into letting-go doorways.

Orientate letting-go doorways away from prevailing cold winds to help in reducing shearers' back pain. Plastic strips such as those used in cool room doorways, or removable flap doors across letting go doorways reduce cold wind (but may baulk sheep).

Heating

Provide heating for workers if required. Care should be taken that the heaters are designed for the purpose, maintained and operated according to the manufacturer instructions.

Working Procedures

Balance and pace shearing activities throughout the day including warm up and warm down.

## 11.4 Atmosphere

### Hazard identification

Carbon monoxide fumes from petrol or diesel engines that power equipment and may be released within the shed are extremely hazardous. Ammonia odours from sheep urine can also encroach on the working environment. Assess the air movement in the sheds as a prerequisite to address this. Fresh air is a basic requirement at any workplace.

Dust in the yard and shed can initiate asthma attacks and other respiratory illnesses in susceptible individuals. In addition, the risk of contracting Q-Fever for people in and around the shed is increased.



An employer must ensure that no person at a place of work is exposed to an airborne concentration of an atmospheric contaminant that exceeds or breaches a standard referred to in or determined under the OHS Reg 2001 Part 4.3.

Aspects of clean air are also addressed in the Protection Of The Environment Operations Act 1997 and associated regulations.

#### Areas for risk assessment:

Type of equipment

Location

Seals

Ventilation

Working Procedures

#### Example control measures:

Use electrical driven equipment where possible. Take note of Section 11.1.

Locate internal combustion engines outside of the shed and run the hydraulic lines inside. This eliminates the exhaust fumes from the shed and removes a major source of noise from the workplace at the same time.

If the motor is located in the shed, ensure it is adequately guarded and that fumes are completely expelled to an area outside the shed where they will not be blown back in by prevailing winds<sup>12</sup>.

Ensure that all seals on exhaust systems are not leaking.

Install vents at or near the ridge of the roof to reduce shed temperature, humidity and the smell of animal urine.

Ensure windows or other vents are open before start-up of power driven equipment.

Limit the production of ammonia odours by regular cleaning out manure from under the shed, ensuring there is adequate drainage and keeping the area as dry as is practicable.

Spray yards with water to settle dust before yarding sheep.

In raised sheds, restrict sheep from camping under the shed when dry, to reduce the level of air-borne dust.

Thoroughly clean shed before shearing operations. This also aids in reducing clip contamination.

# 12. EMERGENCY RESPONSE AND FIRST AID

## 12.1 Emergency response

### Hazard identification

An emergency can occur at any time, with or without warning. Employers should ensure that, in the event of an emergency at the shed, arrangements have been made for:

- the safe and rapid evacuation of persons from the place of work
- emergency communications
- appropriate medical treatment of injured persons.



The OHS Regulation 2001 Chapter 2 states that;

**If the employer does not have control, or has only limited control, of the place of work, the duty applies only to the matters over which the employer has control.**

- taking the following into account:
  - the nature of the hazards at the place of work
  - the size and location of the place of work
  - the number, mobility and capability of persons at the place of work.
- If employees work at a fixed place of work, the employer must ensure that:
  - adequate arrangements are made for the shutting down and evacuation of the place of work in the event of an emergency
  - details of the arrangements for any such evacuation are kept on display in an appropriate location or locations at the place of work
  - one or more persons are appointed and appropriately trained to oversee any such evacuation and, if appropriate, in the use of on-site fire fighting equipment.

Isolated work needs to be taken into account as well. Operations such as mobile crutching or lamb marking may be carried out in an area that is isolated by time or distance, from the assistance of others, so suitable precautions should be in place before the work starts.

### Areas for risk assessment:

Evacuation and shut-down

Arrangements available

Training

### Example control measures:

Ensure that adequate arrangements are made for the shutting down and evacuation of the place of work in the event of an emergency.

Ensure that details of the arrangements for evacuation are kept on display in an appropriate location or locations at the place of work.

Ensure that one or more people are appointed and appropriately trained to oversee any such evacuation and, if appropriate, in the use of on-site fire fighting equipment

## 12.2 First aid

### Hazard identification

Look for properly stocked and maintained first aid kits provided by the owner and/or manager, appropriate to the number of workers, located in the wool shed. Are there a number of properly trained first aiders relative to number of workers in the shed? Have staff been made aware of injury preventative measures in view of the high incidence of injuries in the shearing industry?



**An employer must provide at each place of work:**

- first aid facilities that are adequate for the immediate treatment of injuries and illnesses that may arise at the place of work
- trained first aid personnel if more than 25 persons are employed at a place of work.

An employer must have regard to the location of the place of work, the number of employees at a particular location and the type of work being undertaken in determining the nature, number and location of the first aid facilities and the number of trained first aid personnel that are required.

#### Areas for risk assessment:

Location

#### Example control measures:

Employers should provide first aid kits at the shed. The type and size of the kit depends on the number of employees at that site. These kits should be located close to where people are working, visible and safely accessible to the workers

A vehicle should be available, while work is in progress, for transportation in an emergency. Since a work vehicle is classified as a place of work, there should be a first aid kit in every vehicle used by or on behalf of the employer to transport any person to or from the work site.

Legal

Ensure the requirements of the OHS Regulation 2001 regarding first aid kits (Clause 20) have been met and if not, what steps are required to rectify the situation.

Register of injuries

A register of injuries or injury report book should be kept and maintained by the employer.

Training

Ensure the requirements of the OHS Regulation 2001 regarding first aid training (Clause 20) have been met and if not what steps are required to rectify the situation.

It is recommended that employers and employees ensure that in every shearing shed there is an adequately trained first aider.

All employees should be provided with practical instruction in the nature of first aid facilities in the shed. These would be the location of first aid kits, the names and work locations of trained first aiders and procedures to be followed when first aid is required. This instruction should occur when an employee first becomes employed, there is a change in the nature or type of duties performed and thereafter at regular intervals.

Staff training should include awareness of preventative measures such as appropriate warm ups and safe methods of work.

## 13. AMENITIES, ACCOMMODATION AND TRAVEL

### 13.1 Amenities



*The Occupational Health and Safety Regulation 2001* requires that employers must ensure appropriate amenities are available for all their employees while they are at work.

Amenities may include toilets, rest rooms, shelter sheds, seating, dining rooms, change rooms, provision of drinking water, lockers and washing facilities.

Employees include those who are casual, part-time, itinerant or temporary as well as full time employees. This includes seasonal or periodic employees. The employer may be a landholder, or a contractor (including a labour hire firm).

More detailed guidance regarding amenities is available in the WorkCover publication "Workplace Amenities Code of Practice - 2001".

#### 13.1.1 Range, type and standard of amenities

When determining what amenities should be provided at a place of work, the following factors must be taken into account:

- the nature of the work undertaken
- the size and location of the premises
- the number of men and women.

The Regulation also requires that all amenities provided must be maintained to safe and healthy standards by the employer.

### 13.2 Accommodation requirements

#### 13.2.1 When must accommodation be provided?

Accommodation must be provided at the workplace if the distance from the nearest town or appropriate accommodation to the workplace is such that it poses a serious safety risk to the employee. Factors that must be considered when determining the level of risk would include

- a) Is the employee required to travel further than 80 kilometres one way to the nearest town or appropriate accommodation, or
- b) Is the employee faced with adverse road and other travel conditions, or

- c) Isolated circumstances due to the remote nature of the location of the work (such as the possibility of being isolated in the event of a motor vehicle breakdown).

### 13.2.2 Types of Accommodation

Accommodation provided should be in permanent structures as temporary accommodation is unsuitable for use by shearers, due to the highly strenuous nature of the work and subsequent need for adequate rest and recuperation.

Unsuitable Structures:

- a) buildings erected on site, being of either standard or light weight construction materials
- b) wholly transportable structures, being of light weight construction materials
- c) caravans, and tents.

Suitable structures would include:

- a) permanent buildings constructed of materials appropriate for the location and usage
- b) facilities within existing permanent buildings (including the homestead)
- c) transportable structures erected or installed in a permanent fashion.

#### Areas for risk assessment:

#### Example control measures:

Location of facilities, buildings, structures

Locate building structures in a safe and convenient location. This includes attention to it being:

- so as to prevent any flooding or dampness caused by rising or running water,
- sited so as to avoid of exposure to overflow, run-off or escaping material of any kind, and
- an appropriate distances from any source of noise, odour, other work processes or hazard (and/or the use of other control measures, for example screening or proofing from flies, snakes and other vermin, and sources of infection).

Do not use areas for amenities or accommodation for other purposes, including other work tasks, or the storage of materials or products. However, the inclusion of amenities within a multi-purpose facility (e.g shearing shed) is acceptable. Livestock should not be kept within a close proximity of amenities or accommodation unless there is an adequate physical separation between the two.

Facilities should be located within reasonable walking distance (preferably not more than 100 metres from the actual work site unless that is impracticable due to the nature or location of the work), unless transportation is provided. If

transport is used, the facilities should be within a reasonable walking distance from the on-site transport terminus or suitable roads.

Locate facilities near each other. For example, an amenity such as eating accommodation should be convenient to toilet and hand washing facilities.

Build structures so that they are solidly constructed, weather proof and have a solid, level floor. Adequate lighting, heating, cooling, ventilation and insect screening are important factors to consider. Waterproofing is essential.

Ensure all building structures comply with the Building Code of Australia and applicable state and local government environmental, planning, construction and operational legislation, codes or other requirements.

Ensure that the design, and construction materials, are appropriate to the location of the worksite, and ensure protection from the sun, water, wind, and to the extent practicable, provide protection against heat, cold, dust, insects and vermin.

Finish surfaces to allow for regular and easy cleaning and maintenance of cleanliness, where relevant (e.g. around kitchen and toilet areas).

For some facilities, the code of practice for Workplace Amenities provides guidance on dimensions such as minimum floor space per worker, and numbers of amenities. In such situations that guidance should be followed where possible and appropriate.

#### Design & construction

#### Access and egress

Ensure access to and egress from all buildings, structures and facilities within buildings, should be suitable for the number of workers using the facilities.

Maintain clear and safe access and egress at all times. This includes adequate lighting if the accommodation or amenity is used at night or periods of low level ambient light such as early morning or evening.

#### Electrical safety

Ensure that buildings and facilities are designed and maintained to comply with electrical safety standards. This will include attention to design, layout, installation, fittings and intended use of all electrical installations, wiring and appliances. Earth leakage devices or RCD units should be used. Electrical installations in permanent buildings must comply with AS 3000 *Electrical Installations*.

Fire safety	Ensure that buildings and facilities are designed and maintained to comply with fire safety standards. This will include attention to design, construction materials, electrical and other fire hazards, fire detection systems, fire control equipment and good housekeeping.
Environment - protection from the weather, heating, cooling & ventilation	Install protection from the weather, particularly from the sun and rain. Provide facilities with adequate lighting and ventilation, and where appropriate and practicable, heating and cooling.
Clean water	Ensure that all water supplied for amenities and accommodation should come from water supplies or tanks that are free from contamination, sediment and rust.
Disposal of waste water & other material	Provide adequate drainage to prevent flooding and contamination of areas and to ensure hygiene.  Adequately discharge, or store and dispose of, waste water, sewerage, food and other refuse and any other waste material from amenities so as to ensure safety and hygiene for all workers.
Maintenance & cleaning of facilities	Maintain amenities and accommodation facilities to a tidy, clean and sanitary standard, with the cost borne by the employer, person or company responsible for providing the amenities and accommodation.  Provide an adequate supply of cleaning and personal hygiene equipment and materials such as mops, brooms, cleaning agents, disinfectant, soap, toilet paper and hand towels with the cost borne by the person or company responsible for providing the amenities and accommodation.  Once occupied, upkeep and day-to-day maintenance of the accommodation during occupation or tenancy should be the responsibility of the employees concerned. Employees should ensure that the facilities are maintained to a reasonable standard by disposing of refuse properly, only using the facilities for their intended purpose, and when finished, leaving the amenities in a similar condition to which they were found.
Lighting	Ensure lighting is adequate to ensure safe movement and operation at all times at the amenities and accommodation (OHS Regulation clause 46).

### 13.3 Travel to the property

#### Hazard identification

Shearing industry employment is seasonal and may require frequent and extensive travel between properties. Travel has its own unique risks and where provided by the owner/manager/contractor, should be safe. The relationship between travel and work-start should allow proper recuperation and rest periods.

#### Areas for risk assessment:

Vehicles

Legal

Drivers

Work Practices

Signposting

#### Example control measures:

Repair and maintain vehicles for safety and roadworthiness.

Ensure drivers have appropriate licenses and insurances.

Ensure drivers are competent and experienced in travelling long distances on outback roads.

An employer, particularly a contractor whose role involves bringing the workers and the job together, should supply clear (and tried) travel directions and arrangements in sufficient detail and in sufficient time.

Travel together, either in a single vehicle or in convoy.

Owners should provide farm signposting when buildings are not clearly visible from the road. Night-time visibility needs to be catered for if the shearing team is arriving in the dark.

## 13.4 Travel on the property

### Hazard identification

The Pastoral Industries Award indicates that when the employees' sleep on the property and the shed is one kilometre or more walking distance from the sleeping quarters, the employer shall provide transport to and from the shed. Alternatively, workers may have to walk from the mess or amenities to and from the shed. Regardless of mode, travel provided by the owner/ manager/ contractor, should be safe.

As a guide, for employees working in a defined area within a specific location, amenities should be located a reasonable walking distance (preferably not more than 100 metres from the actual work site), unless transportation is provided. If transport is used, the facilities should be within a reasonable walking distances from the on-site transport terminus. Where this is not possible or practicable due to the nature of the work or the work site, consider providing a full or a limited range, as appropriate, of portable or temporary facilities within this distance of the actual work, or at a suitable place (e.g. the nearest road).

Areas for risk assessment:	Example control measures:
Vehicles	<p>Any vehicle used should be safe.</p> <p>There should be a first aid kit in every vehicle used by or on behalf of the employer to transport any person to or from the work site.</p>
Route / Access	<p>Provide an unobstructed route to and from the shed for workers. Gates should work as intended.</p> <p>Take into account ease of worker and equipment access eg number and location of gates when planning or revising shed and yard design.</p> <p>Ensure straying stock do not pose a risk of collision.</p>
Signposting	<p>Owners should provide on-farm signposting when the shearing shed or living quarters is not clearly visible from the front gate.</p>

# 14.APPENDIX 1

## - FURTHER INFORMATION

### 14.1 Contacts

#### The Australian Workers' Union (National Office)

685 Spencer St  
West Melbourne VIC 3003  
Ph: (03) 9329 8733  
Fax: (03) 9329 2871  
[awu@alphalink.com.au](mailto:awu@alphalink.com.au)

#### The Australian Workers' Union (National Office - NSW)

PO Box 1592  
Strawberry Hills NSW 2012  
Ph (02) 9690 1022  
Fax: (02) 9690 1020

#### A.W.U. (New South Wales Branch)

PO Box 193  
Granville 2142  
Ph: (02) 9897 3644  
Fax: (02) 9897 1481

#### National Registration Authority

John Curtin House, 22 Brisbane Ave, Barton, ACT 2600  
PO Box E240 Kingston ACT 2604  
Ph: (02) 6272 5158  
Fax: (02) 6272 4753  
e-mail: [nra.contact@nra.gov.au](mailto:nra.contact@nra.gov.au)  
[www.nra.gov.au](http://www.nra.gov.au)

#### NSW Farmers Association

GPO Box 1068  
Sydney 1041  
Ph: (02) 9251 1700  
Fax: (02) 92216913  
e-mail [emailus@nswfarmers.org.au](mailto:emailus@nswfarmers.org.au)

#### WorkCover NSW

Locked Bag 2906  
Lisarow NSW 2252  
General Inquiries: 13 10 50  
Rural Hotline: 1800 300 377  
e-mail [contact@workcover.nsw.gov.au](mailto:contact@workcover.nsw.gov.au)  
[www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au)

### NSW Agriculture

Locked Bag 21  
Orange NSW 2800  
Ph : (02) 6391 3100  
[www.agric.nsw.gov.au](http://www.agric.nsw.gov.au)

### Australian Centre for Agricultural Health and Safety

PO Box 256  
Moree NSW 2400  
Ph: (02) 6752 8210  
Fax: (02) 6752 6639  
[www.farmsafe.org.au](http://www.farmsafe.org.au)

### Environment Protection Authority of NSW

59-61 Goulburn Street, Sydney  
PO Box A290, Sydney South 1232  
Ph: (02) 9995 5000 (switch)  
Fax: (02) 9995 5999  
[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

Your local veterinarian, Department of Agriculture/Rural Lands Protection Board or Stock and Station Agent can be sources of information for animal related problems.

## 14.2 Legislation

NSW Occupational Health and Safety Act 2000  
NSW Occupational Health and Safety Regulation 2001  
Dangerous Goods Act 1975 No 68  
Dangerous Goods (General) Regulation 1999  
Pesticides Act 1999  
Smoke-Free Environment Act 2000  
Federal Pastoral Industries Award 1986  
Pastoral Employees (State) Consolidated Award 1998  
Workers Compensation Act 1987  
Workers Compensation Legislation Amendment Act 2001 No 61  
Workers Compensation Legislation Further Amendment Act 2001 No 94  
Workplace Injury Management And Workers Compensation Act 1998

## 14.3 Standards

Exposure standards for Atmospheric contaminants in the Occupational environment.  
[NOHSC]

ISO 7243:1989	Hot environments; estimation of the heat stress on working man, based on the WBGT-index (wet bulb globe temperature)
AS/NZS 1269.0:1998	Occupational noise management - Overview
AS/NZS 1269.1:1998	Occupational noise management - Measurement and assessment of noise immission (sic) and exposure

AS/NZS 1269.2:1998	Occupational noise management - Noise control management
AS/NZS 1269.3:1998	Occupational noise management - Hearing protector program
AS/NZS 1270:1999	Acoustics - Hearing protectors
AS 1318-1985	Use of colour for the marking of physical hazards and the identification of certain equipment in industry (known as the SAA Industrial Safety Colour Code) (incorporating Amdt 1)
AS 1319 - 1994	Safety signs for the occupational environment
AS/NZS 1336-1997 /Amdt 1-1997	Recommended practices for occupational eye protection
AS/NZS 1337-1992 /Amdt 2-1997	Eye protectors for industrial applications
AS 1470-1986	Health and safety at work - Principles and practices
AS/NZS 1596:1997	Storage and handling of LP Gas
AS/NZS 1680.0:1998	Interior lighting - Safe movement
AS 1680.1-1990	Interior lighting - General principles and recommendations
AS/NZS 1680.2.4:1997	Interior lighting - Industrial tasks and processes
AS 1657-1992	Fixed platforms, walkways, stairways and ladders - Design, construction and installation
AS 1668.2-1991	The use of mechanical ventilation and air-conditioning in buildings - Mechanical ventilation for acceptable indoor-air quality
AS 1885.1-1990	Measurement of occupational health and safety performance - Describing and reporting occupational injuries and disease (known as the National Standard for workplace injury and disease recording)
AS 1885.1 Supp 1-1991	Workplace injury and disease recording form
AS 1885/B-1976	Register of work injuries
AS 1885/C-1976	Register of work injuries (modified)
AS 1940-1993	The storage and handling of flammable and combustible liquids
AS/NZS 2161.1:2000	Occupational protective gloves - Selection, use and maintenance
AS/NZS 2161.2:1998	Occupational protective gloves - General requirements
AS/NZS 2210.1:1994	Occupational protective footwear - Guide to selection, care and use
AS/NZS 2210.2:1994/ Amdt 1-1995	Occupational protective footwear - Specification
AS/NZS 2210.3:2000	Occupational protective footwear - Specification for safety footwear
AS/NZS 2210.4:2000	Occupational protective footwear - Specification for protective footwear
AS/NZS 2210.5:2000	Occupational protective footwear - Specification for occupational footwear
AS/NZS 3000:2000	Electrical installations (known as the Australian/New Zealand Wiring Rules)



## 14.4 Codes of practice

Code of Practice for Noise Management and Protection of Hearing at Work (1977).  
Code of Practice for OHS Consultation (2000).  
Code of Practice for Workplace Amenities (2001).  
Code of Practice for Noise Management and Protection of Hearing at Work (1997).  
Code of Practice for Health Care Workers and Other People at Risk of the Transmission of Human Immunodeficiency Virus and other Blood-Borne Pathogens in the Workplace (1996).  
Code of Practice for the Control of Workplace Hazardous Substances (1996).  
Code of Practice for the Preparation of Material Safety Data Sheets (1996).  
Code of Practice for the Labelling of Workplace Substances (1996).  
Code of Practice for the Safe Use and Storage of Chemicals (including Pesticides and Herbicides) in Agriculture (1998).  
Code of Practice for Hot and Cold Environments (2001)

## 14.5 Workcover guides

Managing chemical hazards in the workplace: advice for managers and supervisors  
Guidelines for Assessing the Risk of Exposure to Biological Contaminants in the Workplace  
Skin cancer and Outdoor Workers: a guide for employers  
Skin cancer and Outdoor Workers: a guide for workers  
Workplace PPE program  
Health and Safety Guide: First Aid in the Workplace

## 14.6 Shearing

Australian Agricultural Health Unit. (1997). Wool Shed Safety: Guidance Notes for the sheep and wool industries. AAHU Moree.  
Australian Wool Innovation Ltd. (1999). Project Sean: Market Research Findings on Handpieces for the Australian Sheep Industry Invetech  
Australian Workers Union. (1997). National Code of Practice for the Shearing Industry. AWU Nat. Health and Safety Unit  
Belschner, H.G. (1962). Sheep Management and Diseases. Angus and Robertson Sydney.  
Corporate Safety and Health Services. (1984). An Occupational Health and Safety Study of Shearing and Associated Work in the New England Area of NSW. Melbourne.  
Culvenor, J., Mitchell, T. and Lawrance, M. (1999). Ergonomics of sheep handling equipment for shearing and crutching. VIOSH University of Ballarat.  
Field, B.W. (1988). Improving the safety of sheep shearing handpieces. In Farmsafe 88: Papers and Proceedings of the Farmsafe 88 Conference, University of New England, AGPS, Canberra  
Freeman, R.B. (1988) Wool Harvesting in Australia. In Farmsafe 88: Papers and

Proceedings of the Farmsafe 88 Conference, University of New England, AGPS, Canberra  
Gun, R.T. (1988) Control of Heat Stress in Shearing Sheds. In Farmsafe 88: Papers and Proceedings of the Farmsafe 88 Conference, University of New England, AGPS, Canberra  
Pastoral Industry Award. (1986). Fed. 49 (updated April 1990).

Stuart, D. (1991). The Physical Demands of Sheepshearing with Particular Reference to the Physical Fitness of Shearers. In Farmsafe 88: Papers and Proceedings of the Farmsafe 88 Conference, University of New England, AGPS, Canberra, pp. 419-427.

Webster, M.E.D. & Lush, D.P. (1991). The Effect of Shearing and Crutching. In Farmsafe 88: Papers and Proceedings of the Farmsafe 88 Conference, University of New England, AGPS, Canberra pp. 449-453.

Williams, R., Lawrance, M & Pryor, J. (1997). The Australian Rules of Shearing: An exercise guide for shearers Department of Human Services, Grampians Region, Victoria.

WorkSafe Victoria (2001). Health and Safety in Shearing. Victorian Workcover Authority.

## 14.7 Shed design

Australian Wool Corporation (1980). Wool Harvesting Notes: Shearing Sheds, AWC [parts of this loose-leaf document are dated up to 1983].

Barber, A. and Freeman R.B. (1993). Design of sheep yards and shearing sheds.

In T. Grandin (Ed.), Livestock Handling and Transport. CAB International: Wallingford, UK, pp. 147-157.

Casey and Hamilton. (Eds.) (1990) Yards 'n Yakka! The Sheep Yard and Handling Systems Manual. Kondinin Group.

Conroy, F. & Hanrahan, P. (1994). Sheepyard and Shearing Shed Design, Agmedia, East Melbourne.

Culvenor, J. (1969) The Ergonomics of Sheep Shearing Division Workplace Health and Safety, Department Employment Training and Industrial Relations

Facts for Farmers - Sheep yard and Shearing Shed Design. Agnotes Dept. of Agriculture and Rural Affairs (Vic) Wodonga, 1987.

Joshua, E. (1999). Chemical Residues in Wool - Questions and Answers. Agnote DAI/93 (1st ed.) NSW Agriculture.

Marchant, R. (2000). Shearing shed design - sheep storage and movement. Agfact A3.E.1. (2nd ed.) NSW Agriculture.

Marchant, R. (2000). Shearing shed design - the board. Agfact A3.E.2, (2nd ed.). NSW Agriculture.

Marchant, R. (2000). Shearing shed design - lighting and ventilation. Agfact A3.E.4, (2nd ed.). NSW Agriculture,

NOHSC. (1999). The Ergonomics of Sheep Shearing: Reducing Back injury by modifying Shearing Shed Layout. National Occupational Health & Safety Commission.

Scarlett, E. (2000). Shearing shed design - the wool room. Agfact A3.E.3, (2nd ed.). NSW Agriculture.

# 15.APPENDIX 2

## SHEARING ASSESSMENT CHECKLIST<sup>13</sup>



This assessment checklist can be used to 'walk through' work areas to identify hazards and assess risk. This should be done before shearing starts and during shearing as necessary. Once completed please refer to the Risk Control Work-sheet (p.91).

Area assessed:

Date:



Employee health and safety representatives must be consulted on identification, assessment and risk control.

Employer/management/contractor representative(s):

Employee health and safety representative(s):

Section 2	Page	Risk management	OK? Y/N
2.1 Managing Risks	6	The employer carries out the systematic identification assessment and control of all hazards.  Employers consult with employees (or their representatives) when taking steps to assess and control workplace risks.	
Monitor & Review	9	The "high-risk" hazards are addressed immediately. Whenever circumstances change, the process of identification, assessment and deciding control measures should be repeated.	
2.2 Training & Induction	11	Employers ensure that information is available so that equipment and other goods can be used safely and without risks to health.  Employers provide employees with instruction, training and supervision in safe systems of work and emergency procedures.	
Section 3	Page	Responsibilities & coordination	OK? Y/N
3.1 Concurrent Responsibilities	14	Responsibility for health and safety is shared among all the parties involved in the operation to the extent that their responsibilities apply only to those matters over which they have control.	

3.2 Coordination	15	All persons involved are clear on their responsibilities and expectations, and that they have taken necessary steps to meet their health and safety obligations.
3.3 Workers Compensation Injury Management and Rehabilitation	16	If owner or principal of the business employs a worker, or a contractor who does not sub-contract the work, the owner or principal has a duty of care and should have insurance.  If the contractor does employ workers i.e. has others working for him or her, the contractor should have insurance for those workers.
Advising and injury management obligations after an injury	16	Employers should be aware of and follow their obligations under the Regulation regarding notification of Workcover and the insurer in the event of an accident.  Employers & employees should participate and co-operate in the establishment of an Injury Management Plan by their workers compensation insurer for the injured worker.

Section 5	Page	Work premises	OK? Y/N
5.1 Yards and Races	20	Design aspects Construction Level of repairs and maintenance Working procedures	
5.2 Worker Access	21	Steps Construction and maintenance of doors and ramps Layout in the shed Access to the board	
5.3 Sheep Access	22	Machine placement Work practices (manual handling) Sheep entry to the shed Access for workers and dogs moving the sheep into the shed.	
5.4 Pen Gates	22	Gate design Level of repairs and maintenance Working Procedures	
5.5 Holding & Filling Pens	23	Construction, repairs and maintenance	
5.6 Catching Pens	24	Size of pens Pen Size Design of floor battens. Maintenance Obstructions or steps between the board and catching pen Hygiene	

5.7 Catching Pen Doors	25	Design and condition Work practices	
5.8 Catching Pen Location	26	Location of the pen in relation to the shearer	
		Space	
		Facilities arranged for left-handed shearers	
5.9 Shearing Board	27	Construction	
		Design	
		Tool Storage	
		Back Harness	
Let-Go Area	28	Ease of sheep exit	
		Placement of let-go doors or chutes.	
		Glare	
		Working Procedures	
5.10 Wool Room	29	Space	
		Flooring	
		Wool table	
		Staff numbers	
		Wool trolleys	
		Wool bins and packs	
5.11 Loading Areas	31	Manual handling issues	
		Barriers	
		Construction and maintenance	
		Electricity risks	
		Load shifting devices/vehicles	
5.12 Dimensions	31	All dimensions and distances are such as to not present significant risk to health or safety.	
5.13 Lighting	32	Work areas.	
		Wool Room	
		Grinding Area	
<b>Section 6</b>	<b>Page</b>	<b>Manual handling, fitness &amp; fatigue</b>	<b>OK? Y/N</b>
6.1 Manual Handling	34	Work organization	
		Work environment	
		Training	
		Working posture and position	
		Loads and distances	
		Skills and experience	
6.2 Fitness for Work	36	Fitness and experience level	
		Shearers care for their backs	
		Shearing efficiency	
		Clothing	
		Smoking	
		Drugs and Alcohol	
6.3 Fatigue	37	Equipment	

		Work practices	
		Travel or accommodation	
<b>Section 7</b>	<b>Page</b>	<b>Work practices</b>	<b>OK? Y/N</b>
7.1 Shearing & Crutching	39	Manual handling	
		Cuts	
		Working Procedures	
7.2 Picking up	40	Work Areas	
		Working Procedures	
7.3 Skirting & Classing	40	Working Procedures	
7.4 Mobile Crutching	41	Amenities	
		Equipment	
		Manual handling	
		Communication	
7.5 Goats & Alpacas	42	Fencing	
		Droving/Mustering	
		Plant	
		Working Procedures	
		Fitness	
<b>Section 8</b>	<b>Page</b>	<b>Plant</b>	<b>OK? Y/N</b>
8.1 Overhead Gear & Shearing Plant	44	Emergency Stopping of Plant	
		Training and Induction	
		Down-tubes	
		On/Off Rope	
		Exposed drive belts	
8.2 Handpiece	46	Maintenance	
		Consultation	
		Nicks and cuts	
		Lock-ups	
		Design	
Safety Clutches	47	Fitting and adjustment	
		Wear in short gut bayonet joints	
8.3 Grinder	48	Mounting and location	
		Consultation	
		Training	
		Personal Protective Equipment	
8.4 Wool Press	50	Emergency stopping	
		Guarding	
		Space	
		Maintenance	
		Training	

Section 9		Page	Hazardous substances & dangerous goods	OK? Y/N
9	Hazardous Substances & Dangerous Goods	51	Employers are familiar with and conform to the specific legal obligations set out, in the OHS Regulation 2001 and the Dangerous Goods Act 1975 & Regulation 1999	
9.1	Hazardous Substances	51	Presence of hazardous substances	
			Disposal	
			Storage	
			Level of exposure	
			Working Procedures	
			Training	
			Personal Protective Equipment	
9.2	Dangerous Goods	53	Storage	
			Spillage	
			Heat and sun	
			Ignition sources	
			Decanting	
9.3	Personal Protective Equipment	55	If measures taken by an employer to control a risk include the use of personal protective equipment, the employer should provide each person at risk with personal protective equipment and follow certain obligations as to its maintenance and use.	
Section 10		Page	Animals & Disease	OK? Y/N
10.1	Yarding	56	Design and maintenance of yards	
			The sheep	
			Work practices	
			Personal Protective Equipment	
10.2	Residues	57	Safe application	
			Controlled administration	
			Working procedures	
			Personal Protective Equipment	
10.3	Size and Type	59	Shed design	
			Work Practices	
10.4	Zoonoses	59	Level of contact	
			Working Procedures	
	Flesh Needles	60	Disinfection	
			Work practices	
Section 11		Page	Working environment	OK? Y/N
11.1	Electrocution	61	Maintenance & Repairs	
			Equipment	
			Leads & Plugs	
			Working Procedures	

11.2	Noise	63	Equipment	
			Animals	
			Working Procedures	
			PPE	
11.3	Temperature	65		
	Heat	65	Agreed plan	
			Natural ventilation	
			Artificial ventilation/cooling	
			Heat stress & stroke	
			Working Procedures	
	Cold	67	Sources of cold stress	
			Heating	
			Working Procedures	
11.4	Atmosphere	68	Equipment	
			Location	
			Seals	
			Ventilation	
			Working Procedures	
Section 12		Page	Emergency response & first aid	OK? Y/N
12.1	Emergency Response	70	Evacuation and shut-down	
			Arrangements available	
			Training	
12.2	First Aid	71	Kit Location	
			Legal Requirements followed	
			Register of injuries	
			Training	
Section 13		Page	Accommodation, amenities & travel	OK? Y/N
13.1	Amenities	73	All accommodation and amenities provided by the owner/employer/ contractor are safe and without risk to health.	
13.2	Travel to the Property	77	Vehicles	
			Legal	
			Drivers	
			Work Practices	
			Signposting	
13.3	Travel on the Property	78	Vehicles	
			Route / Access	
			Signposting	



# 17.APPENDIX 4

## ZOONOSIS SYMPTOMS

<b>Q Fever</b>	Q Fever is caught by breathing infected material - including contaminated dust - from the afterbirth, birth fluids and excreta of infected animals.  You can also catch it by drinking un-pasteurised milk, and by contact with contaminated straw, wool, hair or hides.
Human Symptoms	Q Fever may progress from high fever, muscle pain and headache to pneumonia. Some people also develop liver and heart problems.
Sheep Symptoms	Animals carrying Q Fever may not appear to be sick.
<b>Chlamydiosis</b>	Chlamydiosis is caused by <i>Chlamydia psittaci</i> . This agent is responsible for ovine chlamydial abortion. Whether sheep abort or deliver viable lambs, ewes with a placental chlamydial infection shed extremely large numbers of Chlamydiae in the placenta and fluid discharges, creating infectious aerosols.
Human Symptoms	Workers at high risk are those who lamb indoors and have Chlamydia abortions occurring in their flock. Pregnant women should take special precautions since <i>C. psittaci</i> seems to have an affinity for the human placenta and provoke abortion or stillbirth. Clinically the people will experience respiratory illness, including pneumonia, muscle and joint pain general malaise and fever.
Sheep Symptoms	Chlamydia abortions occurring in their flock.
<b>Toxoplasmosis</b>	Toxoplasmosis is caused by <i>Toxoplasma gondii</i> . This agent can infect virtually all warm-blooded animals
Human Symptoms	The main people at risk are pregnant female workers. If they receive their first exposure to this disease early in pregnancy the result is usually spontaneous abortion, stillbirth or severe disease to the unborn child. Maternal infection in later pregnancy most commonly results in sub-clinically infected infants whom may go on to develop more severe symptoms such as mental retardation. General symptoms of Toxoplasmosis include malaise, fever and lymphadenopathy (infected lymph glands)
Sheep Symptoms	<i>T. gondii</i> causes late term abortion in sheep.
<b>Salmonellosis</b>	Salmonellosis is most frequently caused by <i>Salmonella typhimurium</i> .
Human Symptoms	Human infection results from contact with infected sheep and then contamination of ones oral cavity. The organism then grows in the intestinal tract and releases endotoxin, which causes the symptoms. The symptoms occur in 8 -72 hours after ingestion and include diarrhoea, nausea, abdominal pain, prostration, chills, fevers and vomiting.
Sheep Symptoms	In outbreaks, the sheep are usually very depressed and have severe diarrhoea and fever. Pregnant ewes will often abort. Mortality can often get quite high
<b>Cryptosporidia</b>	Cryptosporidia is a protozoan species, which can also infect people. The route of infection for people is through the ingestion of contaminated faeces.

Human Symptoms	The predominant symptoms are diarrhoea, abdominal pain, vomiting, anorexia and fever. The incubation period is 3-8 days and illness often begins with mild fever, nausea and anorexia. This is followed by diarrhoea. The severity of the diarrhoea usually diminished after the first week, however, it may last as long as 3-4 weeks
Sheep Symptoms	The most prominent sign in sheep is diarrhoea in infected lambs.
<b>Scabby Mouth/Orf</b>	Contagious Ecthyma (Orf/Scabby Mouth) is caused by the Parapoxvirus, a poxvirus, which causes mouth, sores in sheep or goats.
Human Symptoms	In people, the painful lesions are most commonly found on the skin of the fingers or thumbs. These lesions are usually raised circular to oval and about 0.5 - 1.5 cm diameter. There is often enlarged regional lymph nodes and fever accompanying Orf. Repeat infections cause a raised hard semicircular nodule somewhat smaller and less inflamed. These lesions are usually itchy rather than painful.
Sheep Symptoms	The lesions commonly found in sheep include blisters that soon become scab like around the mouth and nose of lambs. Scabs are found primarily on the lips but also may affect nostrils, eyelids, mouth, vulva, teats and feet.
<b>Hydatids</b>	Cysts that are the larval stages of the tapeworm <i>Echinococcus</i> produce hydatid disease. Infection occurs by hand-to-mouth transfer of tapeworm eggs from dog faeces. The larvae penetrate the intestinal mucosa, enter the portal system and are carried to various organs where they produce cysts.  Infection stems from the practice of providing farm dogs with raw meat and offal from sheep killed on the farm. The parasite involved has a lifecycle with adult tapeworms in dogs and an intermediate cyst stage in sheep.  Dogs can continuously shed tapeworm segments from their intestine, contaminating pastures and infecting grazing sheep.
Human Symptoms	The tapeworm is generally passed onto humans from handling dogs rather than sheep.  Symptoms depend on the location of the cyst, and develop because of pressure, leakage or rupture.  The most common site for the cysts is the liver; less commonly brain, lungs, kidneys. Prognosis is generally good and depends on the site and potential for rupture and spread.  Sudden rupture of the brood capsules and liberation of the daughter cysts may cause fatal anaphylaxis.
Sheep Symptoms	Sheep may be found infected with hydatid cysts at slaughter.
<b>Yolk boils</b>	This disease in sheep is most commonly called cheesy gland. Its scientific name, Caseous lymphadenitis is often shortened to CLA.
Human Symptoms	Infections in humans are rare but can occur, particularly where infected sheep and goats are skinned by hand. The most common scenario involves puncturing of the human skin with infected knives. The disease has also been spread to humans consuming raw milk from infected sheep and goats
Sheep Symptoms	Cheesy gland causes abscesses in the lymph glands, lungs and sometimes other organs of sheep and goats. The superficial form

	(abscesses of peripheral lymph nodes and shearing cuts) is the cause of abscess scars that decrease pelt value. Other causes for loss include unthriftiness, decreased weight gain and wool growth, reduced milk production and reproductive efficiency. It is difficult to recognise cheesy gland infections in live sheep, but feeling the lymph glands in the shoulder and flank may reveal swelling that is likely to be a cheesy gland abscess.
<b>Tetanus</b>	Bacteria called <i>Clostridium tetani</i> cause tetanus. The bacteria is a normal inhabitant of the intestinal tract of man and other animals, it will be found in faeces and manure.
Human Symptoms	Spores usually enter the body through a puncture wound contaminated with soil or manure. The case fatality ranges from 30-90%. A common early sign suggestive of tetanus is abdominal cramping and rigidity
Sheep Symptoms	The death rate in lambs is high (usually over 75% in affected animals). The disease usually manifests itself as muscle spasms, stiffness and other nervous system signs.

## 18. APPENDIX 5 - DEFINITIONS

Access	The way or means of approach or entry into an area (see Egress)
Amenities	Facilities provided for the welfare or personal hygiene needs of persons and includes toilets, rest rooms, shelter sheds, seating, dining rooms, change rooms, provision of drinking water, lockers and washing facilities.
Accommodation	Sleeping accommodation, and associated amenities, provided by the employer for the welfare or personal hygiene of employees, and required because of the circumstances of their work.
Control measure	A method of minimising a risk to health or safety in the event that it is not possible to eliminate the risk
Dangerous goods	Any substance or article that is potentially dangerous to safety or health within the meaning of the Dangerous Goods Act 1975; based on their immediate physical or chemical effects such as fire, explosion or poisoning. Eg explosives Some <i>hazardous substances</i> are also dangerous goods
Duty of care	Implementing the duty of care principle means planning for the prevention of workplace accidents, injuries and illnesses. There is a general duty of care on employers of the workplace to ensure the health, safety and welfare at work of all employees and others who come on to the workplace
Egress	The way or means of approach or entry out of an area (see Access)
Employer	A corporation, partnership or certain Trusts which, or an individual who, employs persons under contracts of employment or apprenticeship.
Employee	An individual who works under a contract of employment or apprenticeship.
Hazardous substance	Any substance that is potentially harmful to health that: (a) is listed in the document entitled "List of Designated Hazardous Substances [NOHSC: 10005 (1999)]" published by the National OHS Commission, or (b) fits the criteria for a hazardous substance set out in the document entitled "Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 (1999)]" published by the NOHSC. Many hazardous substances are also <i>dangerous goods</i> eg petrol.
Manual handling	Any activity requiring the use of force exerted by a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any animate or inanimate object.
MSDS	Material Safety Data Sheet
Plant	Any machinery, equipment or appliance.
Premises	Any place and in particular includes: any land, building or part of any building, or any vehicle vessel or aircraft, or any installation on land, on the bed of any waters or floating on any waters, or any tent or moveable structure.
PPE	Personal Protective Equipment, which may include items such as

	gloves, aprons, boots, respirators, leggings, goggles, and hats.
Practicable	A solution that is: appropriate to the needs of employees, and within the economic means of the employer.
Risk assessment	The process of assessing the risk of harm to the health or safety of a person arising from the identified hazard. It looks at the likelihood of an injury or illness occurring and how severe the injury or illness is likely to be. It also includes looking at the factors that contribute to the risk.
Risk management	The processes of identifying any foreseeable hazards that might occur in the course of an employer's undertaking, assessing the risks that may arise from these hazards and implementing measures to eliminate or control the risks.
Safe work procedure	A document - based on an identification of the hazards, and assessment of the risks and decisions about how they will be eliminated or controlled - that is written for a particular work process or task. It is designed to tell the way the work can be done safely and identifies the supervisor, the task that might pose risks, the equipment and substances used, agreed control measures, required training or qualifications, PPE needed, and any actions that might be taken if safety issues come up when the task is being done.

## 19. APPENDIX 6

### - GLOSSARY OF TERMS

Back harness	A device aimed at reducing the tension in the shearer's back while the shearer is working in the typical bent posture. The back support is suspended from a point above the shearer's working position. The suspension includes a spring so that, when the shearer is bending down, the spring is extended and there is a resulting upwards force on the chest region.
Bale	A wool pack containing an amount of wool conforming to weight specifications.
Battens	Timber used in open grate flooring of sheep pens. Often about 40 mm x 30-35 mm.
Bayonet joint	The coupling used to join the long and short guts to other drive components.
Board	The floor area where sheep are shorn and then "let-go" out of the shed.
Catching pens	The small pens between the filling pens and the board, where the sheep are placed immediately before shearing.
Chute	A sloping ramp, open or enclosed, from the shearing board leading down to ground level for shorn sheep to be exited through the letting-go doorway that is at the top.
Classing (of wool)	The grading of similar wools for sale (see <i>wool classer</i> ).
Clip	Total amount of wool shorn from flock, shed, country, etc.
Comb	The stationary part of the wool cutting mechanism fixed to the front of the hand piece. The comb penetrates between the wool fibres and is pushed and guided over the skin of the sheep by the shearer.
Cutter	Reciprocating part of wool cutting mechanism fixed to front of handpiece.
Down tube	A vertical steel tube housing the long gut, which descends from the overhead gear or the shearing plant into the handpiece.
Expert	Member of the shearing team responsible for care and operation of shearing shed machinery and the grinding of combs and cutters.
Filling pens	Pens adjacent to the catching pens. It is from here that sheep move into the catching pens
Fly-strike	Certain species of blowflies lay their eggs on the sheep. If the maggots that hatch are not treated before burrowing into the sheep's skin tissue damage and infection can cause death.
Grinder	Machine for sharpening combs and cutters. Power driven discs, with abrasive cloth on one face rotating at approximately 2850 rpm.
Gut (long and short)	Flexible nylon or leather drive shafts that rotate within long and short down tubes and transfer rotation force from overhead gear to the handpiece.
Handpiece	Hand-held instrument weighing approximately 1.3 kgs. This is where the comb and cutter are attached to produce a reciprocating and cutting motion.
Holding Pen	Large pen sometimes outside or under the shed to hold sheep before their moving into the filling pens.
Learner	A shearer who has shorn less than a specified number of sheep
Letting go doorways	The exit directly from the shearing board for shorn sheep. (See <i>Chute</i> )
Lock-up	This is the name of the event when the operation of the handpiece is jammed whilst the rotating force in the down tubes is still present. The main problem is the sudden violent twisting of the handpiece.



Overhead Gear	The plant that actually provide the mechanisms of shearing mounted on a beam above the shearers head but may be driven from elsewhere in the shed.
Pack	An industry approved sack-like container into which wool is pressed. (See <i>bale</i> )
Pen	Enclosure inside or outside the shearing shed for holding sheep.
Penning up	Moving sheep from forcing pens to catching pens ready for shearing.
Picking up	Gathering and lifting fleece once it is shorn off the sheep, carrying to and casting it onto the wool table.
Platen	This is the metal/wooden plate that presses the wool into a bale in the wool press. (Also called a "Monkey").
Press (Wool)	Refers to both the machine and the process of forcing the wool under pressure into a pack to make a bale. The press is a compacting machine consisting of an upright metal (or wooden) box in which the bale is pressed by mechanical or hydraulic force applied to the wool via a <i>platen</i> .
Raddle	Coloured marker in the form of chalk, crayon or spray used to identify sheep
Raised board	A shearing board elevated up to a meter above the level of the wool room floor.
Ram	A male sheep used or intended for breeding.
Rolling	This is the action of folding the fleece for classing. It requires the flesh side to be outer-most.
Run	A two-hour work period. There are four such two-hour runs per day; 7.30 am - 9.30 am, 10 am - 12 midday, 1 pm - 3 pm, 3.30 pm - 5.30 pm Monday to Friday. May involve about 50 sheep/run.
Safety clutch	An adjustable spring loaded clutch in the short gut designed to slip should the rotating and/or reciprocating action of the handpiece become jammed.
Shearing Plant	The machines that actually provide the mechanisms of shearing by providing power to the handpiece.
Shed hands	Workers employed in the shearing shed other than the overseer, shearers, expert and wool classer. Their tasks are between the shearing board and final delivery of wool to either the wool classer and/or a wool bin. This involves at least picking up the fleece and throwing onto the wool table; skirting; rolling, moving bales, sweeping the board and wool room.
Skillion	Outer building sometimes leaning against a wall, with a roof sloping in one direction.
Skirting	Pulling the inferior wool from the fleece while it is spread out on the wool table.
Stand	Refers to the machine and area of shearing board required by a shearer. (See <i>Work-Station</i> )
Withholding period (meat)	The minimum period - under Australian law - that must elapse between the last treatment of an animal, including consumption of treated feed, and slaughter for human consumption in Australia (see <i>ESI</i> )
Withholding period (wool)	The amount of time required to elapse - under Australian law - between treatment of wool with insecticides and shearing.
Wool bin	Large receptacle for storing wool before pressing.
Wool Classer	A person employed to sort wool into various recognised grades or lines, (see <i>Classing</i> ).
Wool room	Area in shearing shed where wool is skirted and classed.
Work-Station	A workers normal location in the shed.
Yolk	Common name for the natural secretion from the sheep's skin onto the wool fibre.

## Health and safety at work - Shearing

Briefly describe the industry you represent  
(tick one)

☐ Agriculture eg wool grower

☐ Services to Agriculture eg shearer, classer

Other \_\_\_\_\_

What is the closest town to where you live?

How many permanent employees in your business if any?

How many casual/seasonal employees in your business on average?

What is your role in the business? (tick one box)

☐ Farm worker ☐ Manager  
☐ Shearer ☐ Classer

Other \_\_\_\_\_

Please write a number from 1 to 5 next to each of the following statements about the publication, with 1 indicating strongly disagree and 5 indicating strongly agree.

- ☐ The publication is presented attractively.  
☐ The information is easy to understand.  
☐ The layout is user friendly.  
☐ The use of icons is helpful.  
☐ It is easy to find specific information in the publication  
☐ The guidance offered deals with real issues confronting us.  
☐ The publication has helped us to identify areas where we need to improve our workplace practices.  
☐ The publication provides sufficient guidance to take immediate action where areas for improvement are identified

Please identify which of the following resources/activities would assist you comply with the components of the legislation addressed by this publication

(tick one or more boxes).

- ☐ Nothing more needed, this publication is sufficient.  
☐ More detailed guidance material  
☐ Case studies  
☐ Training video  
☐ Training CD  
☐ WorkCover internet site  
☐ WorkCover seminar on the subject  
☐ Mentoring program

☐ Business/Industry Group assistance

☐ Direct personal assistance from WorkCover field staff

☐ WorkCover Information Centre

Will you use this publication? (circle)

YES NO

If not, why not?

How will it be used? (tick one or more boxes)

- ☐ Read out of curiosity  
☐ Store for future reference  
☐ Check recommendations against our current practices  
☐ Promote change in our workplace  
☐ Make immediate changes in the workplace  
☐ Guide future actions  
☐ To locate sources of more specific information

What, if anything, is stopping you from following the guidance in this publication?

(tick one or more boxes)

- ☐ Don't need to as not a workplace  
☐ Nothing  
☐ Don't need to as we already comply  
☐ Too costly  
☐ We are too busy to deal with it.  
☐ The issue is too difficult and complicated  
☐ The guidance material doesn't offer practical solutions.  
☐ We have never had a problem with this issue and don't see it as an important priority.

☐ Insufficient staff numbers

☐ Insufficient expertise

Other: \_\_\_\_\_

Comments: \_\_\_\_\_

Questions: Rural Hotline -1800 300 377