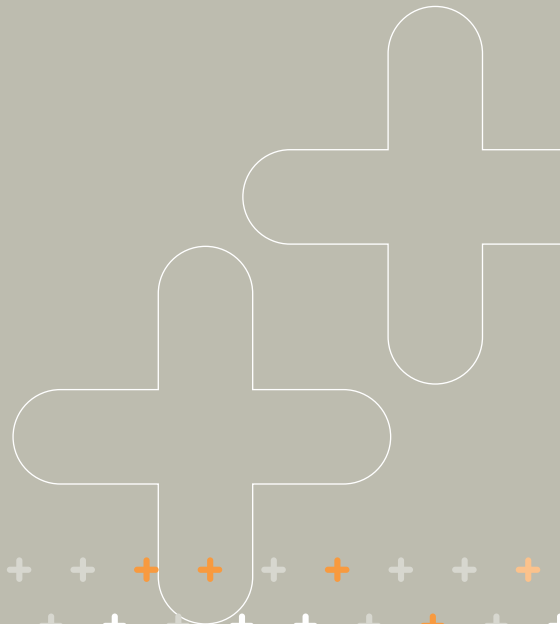




# Best practice guideline for the New Zealand shearing industry

 A GUIDE FOR WORKPLACES



This publication was produced in partnership by the following organisations:



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## Contents

<b>Part one: roles and responsibilities</b>	<b>5</b>
1. The Act: an overview	5
1.1 Principal objectives of the Act	5
1.2 Approved codes of practice or best practice guidelines	6
1.3 How to comply	6
2. The Act: duties	6
2.1 Duties of everyone	6
2.2 Duties of self-employed persons	6
2.3 Duties of employees	6
2.4 Duties if you employ contractors	7
2.5 Employer's duties: general	7
2.6 Employer's duty to identify and manage hazards	8
2.7 Employer's duty to inform employees about health and safety matters	9
2.8 Employer's duty to train and supervise	9
2.9 Employer's duty to involve employees	9
2.10 Employer's duty with regard to accidents	9
3. The Act: definition of serious harm	10
3.1 Definition	10
3.2 Serious harm conditions	10
3.3 Serious harm injuries	11
4. The Regulations: duties	11
4.1 Overview	11
4.2 Employer's duty to provide facilities	11
4.3 Employer's duties: general	12
5. General duties of designers, manufacturers and suppliers	12
<b>Part two: guidelines for the provision of facilities and general safety in shearing work</b>	<b>13</b>
1. Sheep preparation	13
1.1 Animal handling	13
1.2 Presentation of sheep for shearing	14
2. The shearing shed	16
2.1 Access	16
2.2 Sheep pens and gates	16

2.3	Catching pens, gateways and doors	17
2.4	The shearing board	17
2.5	The wool and press room	18
3.	Machinery	19
3.1	Shearing plant	19
3.2	Handpieces	19
3.3	Grinders	20
3.4	Wool presses	20
3.5	Storage of shearer's tools and equipment	21
3.6	Electrical safety	21
3.7	Manual handling	21
4.	Working in the shearing shed	22
4.1	Work in heat and cold	22
4.2	Vapours, fumes and gases	22
4.3	Dusts	22
4.4	Protective clothing and equipment	22
4.5	Chemicals and hazardous substances	23
4.6	Disease from animals (zoonoses)	23
4.7	Wool abscesses	24
4.8	First aid	24
4.9	Noise	24
4.10	Training of employees	25
4.11	Hazard management	25
4.12	Physical and physiological demands	25
5.	Accommodation, amenities and travel	27
5.1	Buildings	28
5.2	Fire	28
5.3	Electrical safety	28
5.4	Cleaning	28
5.5	Water	28
5.6	Eating areas	28
5.7	Kitchens, food preparation and storage areas	28
5.8	Sleeping quarters	29
5.9	Washing, toilet and laundry areas	29
5.10	Travel	29
	<b>References/other publications of interest</b>	<b>30</b>
	<b>Definitions</b>	<b>31</b>



## Part one: roles and responsibilities

### 1. THE ACT: AN OVERVIEW

#### 1.1 Principal objectives of the Act

The Health and Safety in Employment Act 1992 and its subsequent amendments has a principal objective: Every employer shall take all practicable steps to ensure the safety of employees at work.

The following mandatory requirements are designed to help with the safe management of operations.

Requirements	Explanation
Hazard identification and control	A systematic identification of hazards to employees in the workplace, including appropriate controls.
Information, training and supervision	Systems in place to ensure workers have the training and supervision to do the work safely and efficiently.
Emergency procedures	A plan covering procedures during emergencies which may occur in the workplace.
Accident reporting and investigation	Investigation and recording documentation of accidents to employees in the workplace.

## **1.2 Approved codes of practice or best practice guidelines**

In addition to the mandatory requirements, the Health and Safety in Employment Act 1992 (the Act) allows for the development and approval of statements of preferred work practice. These are known as either an 'approved code of practice' or a 'best practice guideline', and are the result of consultation between the Department of Labour and industry.

The guidelines recommend how to comply with the Act. They may include procedures to take into account when deciding the practicable steps workers take to do their job.

Compliance with an approved code of practice is not mandatory. An approved code of practice has to be approved by the Minister. A best practice guideline is generally accepted by the courts as the safety standard for an industry, and it can be altered by general consensus of the participating organisations.

## **1.3 How to comply**

Compliance with the requirements of the Act is best achieved by incorporating the elements listed above. In addition, each individual business should then develop its own health and safety plan. The health and safety plan will be a guide to each businesses safety.

## **2. THE ACT: DUTIES**

### **2.1 Duties of everyone**

The Act places duties on employers, self-employed people and employees to ensure that their work activities do not harm themselves, their employees, or other people in the workplace. For shearing operations, 'other' includes visitors, people near the operation, and the general public who may be in the vicinity of an operation.

Any person in control of a place of work (e.g. A principal, contractor or sub-contractor) shall ensure that people there (or close by) are not harmed by any hazard resulting from work activities.

### **2.2 Duties of self-employed persons**

Self-employed persons shall take all practicable steps to ensure that no action or inaction while at work harms either themselves or any other person.

### **2.3 Duties of employees**

While at work, employees shall take all practicable steps (including using safety equipment) to ensure their own safety and that of others.

### **2.4 Duties if you employ contractors**

Farmers (or those acting as an agent for a farmer) who hire contractors or sub-contractors are principals and shall take all practicable steps to ensure no one is harmed while carrying out work they are engaged to do.



*Every employer shall take all practicable steps to ensure the safety of employees at work.*

## **2.5 Employer's duties: general**

Under the Act, employers are required to:

- provide and maintain a safe working environment
- provide and maintain facilities for the safety and health of employees
- ensure that machinery and equipment are safe for employees
- ensure that working arrangements are not hazardous to employees and
- provide procedures to deal with emergencies that may arise while the employees are at work.

## 2.6 Employer's duty to identify and manage hazards

Employers shall have a three-step system for **identifying and managing** hazards at work.

Step	Task	Description
1. Identify	A hazard is any activity, situation or substance that can cause harm.	
2. Assess	Assess which hazards are significant.	<p><b>Assess which hazards are significant the Act uses that could cause:</b></p> <p><b>“significant hazard” to mean one which could cause:</b></p> <ul style="list-style-type: none"> <li>• Serious harm, including death, serious injury and disease.</li> <li>• Harm which depends on how often and/or how long a person is exposed to the hazard (e.g. exposure to noise over a long period may cause gradual or permanent deafness).</li> <li>• Harm that cannot be detected for a significant time (e.g. exposure to certain chemicals may cause health problems years later).</li> </ul>
3. Manage	Manage hazards	<p>Eliminate the hazard if it is practicable to do so.</p> <p>Isolate the hazard if you cannot eliminate it by putting some kind of barrier or distance between the hazard and the person.</p> <p>Minimise the hazard if you cannot isolate it e.g.</p> <ul style="list-style-type: none"> <li>• Provide suitable protective clothing and equipment and ensure it worn and used correctly</li> <li>• Maintain equipment properly</li> <li>• Train employees in safe work methods</li> <li>• Supervised untrained or inexperienced employees</li> <li>• Monitor employees' exposure to the hazard; and</li> <li>• Monitor employees' health (only with their consent).</li> </ul>

## 2.7 Employer's duty to inform employees about health and safety matters

Employers shall inform employees of:

- the hazards they are exposed to or create while at work
- how to eliminate, isolate, or minimise hazards to themselves and others
- what to do if an emergency arises while they are working. Employers must also give employees the results of any monitoring of their health or the workplace, without identifying individuals.

## 2.8 Employer's duty to train and supervise

Employers shall take all practicable steps to ensure that employees who do any kind of work, or use plant, equipment or deal with any substance:

- have the knowledge and experience to ensure that they and others are not harmed or
- are supervised by a person with the knowledge and experience to ensure that they and others are not harmed or
- are adequately trained in the safe use of all:
  - plant
  - objects
  - substances
  - protection clothing/equipment provided by the contractor, that

the employee may use.

## 2.9 Employer's duty to involve employees

Employers shall ensure that employees have a reasonable opportunity to be involved in the development of procedures and processes for health and safety.

## 2.10 Employer's duty with regard to accidents

Employers shall keep a register of every work-related:

- accident
- serious harm incident
- near-miss incident (where someone might have been harmed)

involving any person in a place of work.

Employers are also required to:

- investigate all recorded accidents, harm and near-miss incidents
- determine whether they were caused by a significant hazard
- document remedial action taken
- notify the Department of Labour of any serious harm accident that occurs at a place of work:
  - verbally as soon as possible
  - in writing within seven days.

Note: The site shall not be disturbed unless authorised by a Department of Labour health and safety inspector, except where necessary to aid the injured

person or prevent serious damage to or loss of property.

Report serious harm accidents to the nearest office of the Department of Labour.

### 3. THE ACT: DEFINITION OF SERIOUS HARM

#### 3.1 Definition

Serious harm has occurred if any of the following symptoms or conditions results in severe loss of bodily function (permanent or temporary).

#### 3.2 Serious harm conditions

This table shows conditions which indicate serious harm has occurred.

Condition	Cause
Unconsciousness	<ul style="list-style-type: none"> <li>• lack of oxygen</li> <li>• absorption, inhalation, or ingestion of any substance, requiring treatment by a registered medical practitioner.</li> </ul>
Hospitalisation	<ul style="list-style-type: none"> <li>• any need for the person to be hospitalised for 48 hours or more, commencing within seven days of the cause.</li> </ul>
Temporary or permanent severe loss of body function	<ul style="list-style-type: none"> <li>• pain or health impairment is significantly more than discomfort and</li> <li>• pain or health impairment prevents use of part of the body.</li> </ul>
Acute illness	<ul style="list-style-type: none"> <li>• from absorption, inhalation, or ingestion, of any substance, requiring treatment by a registered medical practitioner.</li> </ul>
Sickness/illness	<ul style="list-style-type: none"> <li>• decompression</li> <li>• poisoning</li> <li>• exposure to infected material</li> <li>• cancer.</li> </ul>
Disease	<ul style="list-style-type: none"> <li>• neurological disease</li> <li>• dermatological disease</li> <li>• respiratory disease</li> <li>• musculoskeletal disease; communicable disease.</li> </ul>

### 3.3 Serious harm injuries

This table shows injuries which indicate serious harm.

Body part	Injury
Any part	<ul style="list-style-type: none"><li>• amputation</li><li>• burns requiring referral to a medical specialist or specialist outpatient clinic</li><li>• laceration</li><li>• bone fracture</li><li>• crushing.</li></ul>
Eyes	<ul style="list-style-type: none"><li>• chemical burn</li><li>• hot-metal burn</li><li>• penetrating wound</li><li>• other vision impairment.</li></ul>
Ears	<ul style="list-style-type: none"><li>• noise-induced hearing loss.</li></ul>

## 4. THE REGULATIONS: DUTIES

### 4.1 Overview

The Health and Safety in Employment Regulations 1995 lay down certain duties of employers and others. Explanation and practical application of these regulations is contained in the *Guidelines for the Provision of Facilities and General Safety in Shearing Work* available from the Department of Labour.

### 4.2 Employer's duty to provide facilities

Employers have a duty to maintain, keep clean and provide access to the following facilities, sufficient for the place of work:

- washing facilities
- toilets
- drinking water
- first-aid equipment
- facilities for employees who become ill at work
- facilities for changing and storing clothes
- facilities for meals
- lighting
- emergency exit plans.



#### **4.3 EMPLOYER'S DUTIES: GENERAL**

Employers have general duties which relate to the management of particular hazards, e.g.:

- Working at heights
- Activities under raised objects
- Earthworks and excavations
- Harmful noise
- Cleaning maintenance and repair of machinery
- Protective structures of self-propelled plant
- Employment of young persons.

#### **5. GENERAL DUTIES OF DESIGNERS, MANUFACTURERS AND SUPPLIERS**

Designers, manufacturers and suppliers of plant and protective clothing or equipment have general duties which relate to the safety of their products.

Expansion of these duties is contained in the relevant guidelines as explained in Part two: The shearing shed and Part three: Machinery of this document.



## 📖 Part two: guidelines for the provision of facilities and general safety in shearing work

### 1. SHEEP PREPARATION

#### 1.1 Animal handling

All practicable steps should be taken to cope with the hazards associated with handling sheep. For example:

- Safety when yarding sheep can be improved when yards are well designed. Safety boots should be worn when yarding, as a sheep standing on the foot of a person not wearing safety shoes may cause bruising.
- Avoid lifting sheep as many injuries are caused this way. If sheep do have to be lifted, bend your knees and use your leg muscles.
- The best method of sitting up sheep is to turn the sheep's head on to its shoulder. In a clear area, the sheep should be held against braced knees with one hand under the chin and one on the rump. Next, the sheep's head should be turned to the rear while the other hand forces the hindquarters down against the leg. When the sheep is no longer standing on its feet you can then lift the front leg and sit the sheep securely on its rump.

To save effort and avoid back strain when shearing, get the animal to walk



backwards and then sit on its rump. Correct techniques should be used when shearing, and thorough training should be provided for people involved in this work. Aids such as a counterbalance may help reduce back strain.



Sheep can be very unpredictable at times, and have a tendency to charge people when they are held in the yards or pens. Always be aware of their potential to cause injury especially to areas such as the knees.

## 1.2 Presentation of sheep for shearing

All practicable steps should be taken to ensure sheep are presented in good order for shearing to help reduce the risk of injury or illness. For example:

- Farmers must ensure sheep are dry for shearing operations. Damp or wet wool should not be shorn as this increases the risk of shed workers developing wool abscesses or arthritis. The quality of the wool is also affected.
- Sheep should be dagged prior to shearing.
- Sheep should be drafted according to:
  - breed
  - sex
  - age: lambs, hoggets and mature sheep
  - wool length: sheep previously shorn at different times
  - sheep brought onto the property since the previous shearing
  - illness or ailments including footrot, lice, ticks, flyblown, and zoonoses.
- Before shearing mobs of rams, negotiations between the grower and contractor or shearing team members can take place to determine a method for shearing that allows adequate support to be available to shearers in



the event of a ram struggling free or becoming free on the board.

- Sheep that are adequately emptied out cause fewer back injuries and strains, and reduce the incidence of pen stain in wool. The recommendations for emptying out sheep prior to shearing are summarised in the following table. It should be noted that they refer to the minimum and maximum periods of time without feed and water prior to shearing for any individual sheep.

Summary of recommendations for emptying out sheep prior to shearing

Recommended minimum and maximum number of hours without feed and water prior to shearing						
	Minimum number of hours without feed	Maximum number of hours without feed	Minimum number of hours without water	Maximum number of hours without water	Special considerations	
Ewes (and adult male sheep)						
Non-pregnant, non-lactating	20	32	12	24		
Early to mid-pregnancy	18	30	12	24	Exceeding these maximums may induce metabolic problems and/or precipitate clinical diseases.	
Late pregnancy and lactation	12	24	8	20	Exceeding these maximums may induce metabolic problems and/or precipitate clinical diseases. Where practical, unweaned lambs should remain with their mothers until ewes enter the woolshed.	
Hoggets						
Non-pregnant, non-lactating	18	30	12	24		
Pregnancy and lactation	12	24	8	20	Use special care when handling pregnant hoggets. Exceeding these maximums may induce metabolic problems and/or precipitate clinical diseases. Where practical, unweaned lambs should remain with their mothers until hoggets enter the woolshed.	
Lambs						
Pre-weaning	6	24	6	20	Exceeding these maximums may precipitate clinical diseases.	
Weaned	12	24	8	20	Exceeding these maximums may precipitate clinical diseases.	



## 2. THE SHEARING SHED

### 2.1 Access

All practicable steps should be taken to ensure that access to the workplace is safe for all people entering the workplace or property. For example:

- roading to and from a place of work should be free of hazards and deemed safe for vehicle access
- carpark areas would preferably have a grit or gravel area to cater for winter conditions
- woolshed entry points should have steps to provide access to elevated sheds or raised boards as required, and they should be properly designed for their purpose. They should be sound, have wide treads and have a non-slip surface. Chicken netting safely and securely stapled to wooden steps makes them safer. Where the height from the ground to the shed is over one metre the steps and landing should be fitted with adequate handrails. Adequate lighting should be installed near entry to the woolshed to ensure good visual access. It is recommended a sensor light be fitted above outside steps
- emergency exit doors should be easily opened and closed. Big sliding doors can be a problem if not easily moved. Exits should be clear of all obstacles to ensure a safe exit.



### 2.2 Sheep pens and gates

Sheep pens, races and gates can potentially expose the 'penner up' person to the risk of injury from slips, trips and falls. All practicable steps should be taken to ensure this risk is minimised. The penner/presser is not responsible for yarding sheep other than inside the woolshed.



Gate hinges, catches, railings and stops should be well maintained and in good working order. Pen gates should

be able to swing in and out. All parts and components used should be free of sharp edges, protrusions and splinters. Pens and gates should be inspected for protrusions and sharp edges before each shearing season and repaired as required. Counterweights fitted to gates are a serious hazard and must be enclosed. Light coming up from under the pen floor

should be blocked out if it is causing problems during penning.

### 2.3 Catching pens, gateways and doors

Catching pens, gateways and doors can cause injury to members of the work team if not well maintained or not well designed.

The physical size of the pens may result in excessive lifting and dragging if too large, or restrict movement if too small. The catching pen should hold 20 to 25 sheep and the minimum distance to drag the sheep should be about 2.5 metres.

Grating that runs across the catching pen allows sheep to gain a foot hold, restricting the ease of tipping and dragging and increasing the risk of back injury to workers. Grating should run towards the catching pen doors enabling the shearer to tip the sheep's back towards the door more easily. This reduces twisting, the distance the sheep needs to be dragged, and friction during dragging.

The size, weight and action of the catching pen doors can create risks. The top edge of the pen door should not be able to strike the shearer in the lower back. To minimise the impact of the pen door on the shearer at every 'catch', resistance of pen doors should be minimised. Broad padding should be fixed on the inside of doors at the height of the lower back, about 1.2 metres. Doors should be made from lightweight material, smooth on both sides and with no protrusions. Pen doors

should be self-closing and allowed to close after catching each sheep.

Poorly located and oriented catching pens and doors place undue strain on shearers' backs. The shearer should be able to walk backwards from the catching pen door to the downtube without needing to twist or turn more than 90 degrees. The distance from the back of the catching pen to the downtube should be kept to a minimum.



### 2.4 The shearing board

The floor of the shearing board is an extremely high use area. All practicable steps should be taken to ensure the hazards associated with the shearing board are minimised to reduce the risk of injury.

Slippery floor boards increase the effort required by shearers to hold the sheep and maintain stability, increasing the risk of back injury. The floor needs to be kept in good condition. Non-slip surfaces are essential and the shearing board should



not be varnished. Tongue and groove wood makes a good floor as it is strong, provides good grip and is slow wearing.

Insufficient floor space increases the risk of collisions and interference with other shearers. Ensure sufficient floor space for all workers to perform their tasks safely and properly. The shearer must be able to work without encroaching on the next shearer's work space or route in and out of the pen. A minimum distance of 2 metres between the downtubes is recommended for new or renovated sheds. Size of sheep must be taken into consideration.

A secure fixing point for a back harness should be provided. It should be clear of any overhead shafting plant and lighting fixtures and within reach when standing on floor.

Sheep should have an unobstructed exit from the shearing board that requires the least effort from the shearers.

Where chutes are used their entrance should be extended onto the floor of the shearing board by some 100 to 150 mm, with the front edge lower than the floor, for easy release of sheep. Ensure that chutes and doorways are large enough to allow for easy handling of large-framed sheep. If modifying the count out pen, consider placement of chutes/doorways in positions that limit drafts or glare to the board.

## 2.5 The wool and press room

All practicable steps should be taken to ensure wool and press room hazards are identified and minimised to reduce the risk of workers being injured.

Continual bending and reaching to pick up fleeces off the board increases the risk of back strain. Raised shearing boards reduce the risk of back strain.

Insufficient space in the wool room increase the risk of injury from collision with other workers and contact with machinery. The minimum clear space around the shearing board end and working sides of the wool table should be 1 metre, with a minimum of 2 metres between any machine and the wool table. Ensure there are no obstacles between the board and the wool table.

Small wool tables that are not designed for the size of current fleeces or are the wrong height can cause back strain. A well-designed wool table is essential for safe work with reduced risk of strain or injury. The table height should be adjustable. Ensure wool tables are large enough to accommodate fleeces.

Uneven floor surfaces increase the risk of trips, slips and falls. Keep the floor clear and in good condition. Protruding nails should be countersunk, and uneven, loose and slippery boards should be repaired or replaced. Concrete floors require some impact-absorbing material considering the amount of speed and movement required of wool handlers.



Wool bins should be located and orientated in such a way as to provide easy access for wool handlers. Wool bins should be designed so they are light and can easily be moved by wool handlers. Protruding objects should be removed or covered. Ensure wool bins are well maintained.

Using bale hooks and trolleys and getting help to move wool bales will decrease the risk of injury. If a bale trolley is used the floor must be level and strong enough to support the wheels of the trolley.

Where practical, the wool room should be kept clean, safe and hygienic.

Ensure there is good lighting in all work areas and at all times of the day and year.

### **3. MACHINERY**

All practicable steps should be taken to ensure all machinery is well maintained and certified to meet minimum safety standards. Persons operating machinery should have correct training or be under supervision of a trained person.

#### **3.1 Shearing plant**

Ensure that adequate guards are in place to minimise the risk of clothing, towels or fleece becoming entangled in the shafting plant.

Portable stands that are inadequately secured and incorrectly fitted can result in injuries. Ensure portable stands are safely fitted and secured.

Power points for individual electric power plants should be positioned between 1 and 1.5 metres above floor level. This is recommended to bring them within reach of the shearer.

The downtube height should be positioned so that the lower end of the short tube describes a circle of 275 mm in diameter on the floor, with the long tube perpendicular and 600 mm away from the wall or any obstruction.

Ensure that the downtube parts are in good condition and correctly installed. The spring at the top of the downtube should be in good condition and not worn or weak. Joint guards must be fitted to all joints.

It is recommended that worm drives (not pin drives) are installed in new or renovated sheds as they reduce the risk of serious injury due to a lock up.

#### **3.2 Handpieces**

A worn out, poorly adjusted or poorly maintained handpiece will vibrate, heat up, cut poorly and put more physical strain on the shearer, particularly their hands and arms. The handpiece must be in the best possible condition and be kept in good working order and worn parts replaced. Where the shearer is required to supply and maintain his or her own handpiece the shearer is also responsible for keeping it in good order.



### 3.3 Grinders

To ensure the safety of grinder operators all practicable steps should be taken to ensure the grinder is well maintained and certified, and only operated by persons with appropriate training or supervision.

Personal protective equipment, including safety glasses that allow good vision, should be provided, maintained in good condition **and worn** to prevent foreign objects propelled from the grinder entering the operator's eye, or striking the face.

Guards must be provided and maintained on all grinders. This is to help minimise the risk of foreign objects striking the person in operation of the grinder.

Rotating discs can fly off the grinder and cause injury to operators. Operators should check that discs are properly secured before each start up by attempting to simultaneously rotate discs in opposite directions. Discs, nuts and washers should be compatible with the grinder. The grinder should be mounted so that the direction of the disc rotation is away from busy work areas and flammable materials including wool packs.

All grinders must be in a secure, properly lit enclosed space and securely anchored in position.

Electrical leads and cables need to be properly routed to eliminate any risk of them being cut or damaged or being tripping hazards.

Exposure to high noise levels can result in permanent hearing loss. Grinder operators must be provided with earmuffs which must be used and maintained in good condition.

### 3.4 Wool presses

All practicable steps should be taken to ensure the safety of all wool press operators and those in the vicinity.

This includes ensuring that the press is maintained in good operational and mechanical condition. Anyone using a press must be properly trained and skilled in its use.

The design of some wool presses makes it possible for the operator to become entrapped. The use of block and tackle wool presses is not recommended because of the serious injuries associated with them. It is considered safe to use these presses if they are converted to a wind-up type press. This type of conversion can only be carried out if the boxes are in sound condition. It is not recommended that double action ratchet wool presses be used. Many presses of this type have worn mechanisms that fail suddenly due to their age, increasing the risk of serious injury to the operator. Manual handling problems are also associated with loading the wool because of the double-sized box.

Powered wool presses should have a safety stop mechanism. A readily accessible trip switch should stop



operation of the press if the switch is 'tripped' by an operator or bystander.

Hydraulic lines should be inspected before operation and worn lines should be replaced. Hydraulic hoses that burst under pressure can result in serious burns or penetration injuries from hydraulic pressure.

Electrical leads and cables must be properly secured and clear of any moving parts such as the ram, monkey, doors, press wheels and bale barrow wheels. This is to reduce the risk of electrical hazards.

Ensure the press is located so that there is no interference between the operation of the press and other work being carried out near by.

Electric pull-over presses should have guards installed on sprockets and chains.

All lift and swing presses must be fitted with a hoist brake which must be maintained and operational.

All wire and nylon ropes on presses should be in good condition, not frayed or worn.

### **3.5 Storage of shearer's tools and equipment**

Loose tools and equipment on the board pose a slipping and tripping hazard.

Damage to tools and equipment may occur which can affect their subsequent use and operation. Provide adequate storage space for shearer's tools and equipment near the work area. The storage area should not be located above the porthole.

### **3.6 Electrical safety**

The electrical wiring and fittings of machinery connected to the mains supply (or similar) must comply with the Electricity Regulations 1993.

All portable or hand-held machinery that derives power from an electrical current should be used with a properly connected isolating transformer or residual current device. Specific guidance on the suitable types and use of these devices should be sought from the appropriate electrical supply authority or from an electrical inspector.

### **3.7 Manual handling**

In addition to animal handling, many tasks around the woolshed involve lifting, carrying, pushing and pulling movements, which can result in physical injury. The physical demands of shearing and shed work require that workers have a reasonable level of fitness. The primary responsibility to ensure fitness is with the employee. It is necessary that adequate warm up and warm down exercises are performed by workers at the start and conclusion of each run. These exercises will assist in limiting the extent of back injury.

## **4. WORKING IN THE SHEARING SHED**

### **4.1 Work in heat and cold**

Hot or cold working conditions can have significant impacts on the safety and





health of all shed workers. All practicable steps should be taken to reduce the risk of these conditions affecting the abilities of the shearing team.

Improving the design of new sheds and improving the ventilation, insulation and shade of existing sheds will help to reduce the effects of heat on the shearing team. Installation of vents on the shed roof helps to increase ventilation and air movement. The addition of windows that open and close adjacent to the work areas and on opposite sides of the shed helps to increase ventilation. Where portable fans are used; power points, leads and cables need to be properly placed and located to avoid electrical and tripping hazards.

The effects of cold on shed workers can be reduced by ensuring the orientation of the 'let go' chutes is away from prevailing cold winds. Changing the orientation may help to reduce shearer's back pain. Plastic strips or removable flap doors on the 'let go' chutes can reduce cold draughts.

#### **4.2 Vapours, fumes and gases**

Fumes, smoke, exhaust gases and particulates produced by petrol and diesel motors in the shed are a health hazard. Use electrically-driven equipment where possible. Motors should be located outside the shed to minimise exhaust gases and fumes entering the shed. Ensure motors are in good repair and well maintained. Good ventilation within the shed helps to minimise the effects of fumes and gases.

Ammonia from stock urine has an unpleasant pungent odour and is an irritant gas. Limit ammonia fumes by regularly cleaning out manure from under the shed. Ensure there is adequate drainage and keep the area as clean and dry as possible. Good ventilation under the shed helps to dry the area and disperse fumes.

#### **4.3 Dusts**

Dusts in the yard and shed can initiate asthma attacks and other respiratory illnesses in susceptible individuals. Spray yards with water to settle dust before yarding sheep. In raised sheds, restrict sheep from camping under the shed to reduce the level of airborne dust.

#### **4.4 Protective clothing and equipment**

Employers should ensure that where necessary, employees are protected from exposure to hazards through the use of suitable protective clothing and equipment. The clothing worn should be appropriate for the job tasks and include suitable footwear that covers the whole foot. Shearing footwear improves grip and stability, decreases the risk of slipping and falling, decreases fatigue and protects the feet.

#### **4.5 Chemicals and hazardous substances**

Many chemicals used in wool growing are hazardous substances. Exposure to hazardous substances can have serious and

permanent effects on health that can also be life-threatening. It is important to remember that shearers are in direct contact with sheep for eight or nine hours a day.

Hazardous substances include:

- pesticides used in internal and external parasite control
- chemicals used for blowfly and lice control
- footrot control chemicals
- herbicides/insecticides used in cropping and pasture management
- solvents
- rodenticides.

Hazardous substances, protective equipment and clothing should be stored away from the woolshed and in accordance with current guidelines. In some cases they can be stored in sheds if the proper safety procedures are followed. All unwanted, out-of-date or banned hazardous substances should be removed from the woolshed and disposed of in accordance with current guidelines. There should be no chemical work done in the shed.

Treatment of blowfly is to be undertaken outside of the shed by the farmer. Shearers should not do this work. Ensure that withholding regimes are followed after treatment of stock so that no workers are exposed to residue in wool. Footbaths must be located away from the work area of the shed, and designed to

ensure spray or fumes do not drift into the shed.

#### 4.6 Disease from animals (zoonoses)

Zoonoses are diseases transmitted from animals to humans. They may occur as a result of working with animals or animal products. Cuts, scratches and grazes as a result of watching and shearing activities are particularly susceptible to infection. Sources of infection may include sheep urine and manure, maggots and lice. The most common diseases transmitted from animals to humans are:

- orf – a disease that causes lesions on hands and forearms, commonly known as ‘scabby mouth’. The main preventative measure is to keep all cuts and grazes covered, and avoid contact with infected stock. Sheep with an active outbreak of orf must not be shorn or crutched until their condition is resolved. Remove infected animals.
- leptospirosis – a very debilitating disease that can cause prolonged illness. People are infected by contact usually through the skin or any mucous membrane from infected urine. Ensure cuts and grazes are covered with waterproof dressing.

It is essential that good sanitary amenities such as clean running water and hygienic toilet facilities be provided to promote good hygiene practices and to reduce the risk of infection.



#### 4.7 Wool abscesses

Wool abscesses are caused by wool fibres, particularly short second cuts, penetrating the clothing and getting into the milk ducts and sebaceous glands. These can cause infections and form abscesses on the breast. Wet fleeces and greasy or dirty wool also seem to contribute to the problem. One solution for women is to wear an appropriate specially designed bra made of material that stops the wool fibres penetrating is available. Other commonly used preventative measures include putting plastic wrap or placing nursing pads down the bra. Shearers are also subject to wool abscesses (wool maggots) between their fingers. It is, therefore, important to wash thoroughly between the fingers.

#### 4.8 First aid

First aid facilities should be provided, maintained and be accessible to all employees involved in the shearing industry. This may mean that first aid kits need to be carried in work vehicles. The majority of shearing operations are carried out in isolated areas; employers should ensure that all employees have a basic understanding of the principles of first aid. First aid kits must be available and easily accessible in both the shearing shed and shearing quarters.

The majority of accidents that happen around the workplace are lacerations, strains and sprains. You should ensure your first aid kits are well equipped

for these. Remember a first aid kit is for stabilising an injured person until professional help is received.

#### 4.9 Noise

Exposure to noise levels above a daily average exposure of 85 db(a), (over no more than 8 hours a day and no more than 40 hours per week) or a peak noise of 140 db is likely to cause people with unprotected hearing to suffer noise-induced hearing loss. Typical noise levels associated with the shearing industry are as follows:

- bench grinder – 90 to 95 db(a)
- woolshed during shearing – up to 97 db(a).

It is recommended that monitoring of employee health in relation to noise exposure is carried out even if employees use appropriate hearing protection. This monitoring should be carried out at least every two years.

All practicable steps should be taken to reduce noise at its source, and when buying new machinery the quietest machinery should be obtained. Appropriate hearing protection should be provided for employees and others in the place of work who are likely to suffer from noise-induced hearing loss.

#### 4.10 Training of employees

The employer or person in control of the workplace should ensure that no person carries out any work unless they have





been instructed in the hazards associated with the work and the precautions to be taken in relation to these hazards.

Unless the employee has the skills to carry out the work without risk to safety or health, then the employer or person in control of the workplace should ensure that a person who does have the skills closely supervises the employee.

#### **4.11 Hazard management**

Effective hazard management is the key to ensuring a safe and healthy workplace. Identifying the hazards is an ongoing process as hazardous situations arise continually in every-day work. Employers should have methods of identifying, assessing and managing both new and existing hazards in the workplace. Employees should work in accordance with best work practices in order to prevent hazards arising and harm occurring to any person.

#### **4.12 Physical and physiological demands**

Shearing and wool handling is a very physical job which requires long hours of work and the continuity of work is uncertain. It is recommended that a rest period be taken after every thirty days of continuous work by an employee.

The length of the rest period is up to the employee but a minimum one day stand-down period is advised.



It is common in the industry to work between the hours of 5.00 am to 6.00 pm. This may alter (by mutual agreement between all parties) due to an early cut out or a late cut to ensure the completion of a job.

It is recommended that shearers work no longer than a two-hour run duration at any one time with a fixed known rest period, i.e. smoko 30-minute break and lunch 45 to 60-minute break.

The physical and physiological demands on an employee can alter throughout the day, due to changes in climate and sheep type, machinery failure, inadequate workplace or facilities, or even a conflict of interest with fellow employees, employer or woolgrower.

There are also many other physical and physiological factors outside of the workplace that may have an impact on an

employee's performance at work. These could start at home or recreationally, or result from financial problems, sleep deprivation, nutritional problems, behavioural relationships, alcohol and drug abuse or personal health problems.

If an employee suffers from any of these conditions and you feel it may affect your work or others work performance, report it to either a leading hand or management as soon as possible.

The key to dealing with these issues is prevention, recognition and intervention. Good communication between employee, employer and woolgrower or even mentor is essential.

**T**ogether  
**E**veryone  
**A**chieves  
**M**ore



An employer has a duty to monitor, assess and recommend periods of rest to employees. This is especially true in shearing due to the physical demands of the job. Employees' capacity to absorb these requirements varies from person to person and from task to task. No set periods of continuous employment can be defined or length of rest advised. The employer must assess employees on a case-by-case basis, taking into account all the variables and possible contributing factors that could lead to injury. Again, good communication is essential.

Examples of contributing factors:

**Individual factors** – Things about a person that they can change (e.g. diet, fitness, sleep) and things they cannot change (e.g. age, strength, height).

**Psychosocial factors** – How a person thinks and what they believe about things that are happening at home or at work (e.g. money worries, relationship issues, lack of work support, and unrest in the team).

**Work organisation** – How work is arranged, delegated and carried out (e.g. number of days worked, pace of work, rest breaks and numbers of employees to do the job).

**Workplace layout/awkward postures** – The woolshed set-up and design and the working positions and how people adapt to them (e.g. having to move sheep forward to the shearing position after the drag).

**Task invariability** – The amount a task changes over time (e.g. insufficient variety of tasks, or repetition of tasks such as a wool handler being continually left at the wool table to skirt fleeces).

**Load/Forceful movements** – The objects being handled and the forces being applied (e.g. working with extremely big or heavy sheep for a prolonged period, use of a manual press, stacking of bales).

**Environmental issues** – Where the work takes place and the conditions in which people work (e.g. extremely cold or hot weather, vibrating overhead machines).

It's important to understand that it is often a combination of factors, rather than any one particular factor in isolation, that causes discomfort, pain or injuries. Even fit and strong people can develop these conditions if they are exposed to the risk factors.

***NOTE:** Minor aches and pains are a common part of shearing life. Early reporting is encouraged because it can lead to a quick identification of those factors that may be contributing to discomfort, pain and injury and enable actions to be taken to 'nip it in the bud'.*

## 5. ACCOMMODATION, AMENITIES AND TRAVEL

The employer should provide and maintain, as far as practicable, a working environment where employees are not exposed to hazards. This extends to the accommodation and amenities provided



and the travel between the quarters and the shearing shed.

### **5.1 Buildings**

Buildings must be in sound structural condition, habitable, adequately ventilated and able to cope with temperature extremes. Steps should be in good order with all weather non-slip treads and adequate handrails. These areas must have adequate lighting at night. Safe entry and exit from buildings is essential.

### **5.2 Fire**

Fireplaces and heaters need to be properly constructed and guarded and must not be used for drying clothes. Adequate smoke detectors, fire alarms, extinguishers, signs, emergency exit procedures and need to be in place as necessary.

### **5.3 Electrical safety**

All electrical installations and any electrical modification or maintenance must comply with the Electrical Regulations 1993. Wiring and power leads must be safely routed to eliminate tripping and electrical hazards.

### **5.4 Cleaning**

All work areas require regular and proper cleaning, maintenance and where necessary, disinfecting to ensure good health and hygiene. This particularly applies in eating, cooking, laundry, bathroom, washing and toilet areas. Employees have a responsibility to practice good hygiene and keep work areas clean. It is the employer's

responsibility to ensure proper cleaning. Arrangements for cleaning and maintaining hygiene should be worked out and agreed upon before shearing starts.

### **5.5 Water**

Adequate, cool and clean drinking water must be readily available at all times. An adequate supply of hot water should be provided for showers, baths, and hand basins, washing clothes and cooking.

### **5.6 Eating areas**

Adequate seating and tables for all employees must be provided in eating areas. Adequate seating helps reduce stress on the backs of workers. If practical there should be adequate lighting and ventilation in eating areas. There should be a separate and suitable eating area in or adjacent to the shearing shed for health and hygiene reasons.

### **5.7 Kitchens, food preparation and storage areas**

Kitchens and other areas used for food preparation and storage need to be properly set up and laid out to ensure good hygiene, safety and health. Bench space, sinks, stoves, refrigeration, lighting, ventilation and food storage need to be adequate. Food preparation, handling and storage practices must ensure good health and hygiene. There must be adequate hot and cold water and outflows and drains.

## 5.8 Sleeping quarters

Sleeping quarters must be suitable to ensure that employees can obtain sufficient rest. They should be of adequate size, clean and habitable. Five square metres of floor space per person is recommended, as is sound insulation in walls between rooms. Adequate ventilation and lighting is necessary. Adequate beds and mattresses must be provided.

## 5.9 Washing, toilet and laundry areas

Adequate washing facilities and toilets must be provided at shearing sheds. At shearing quarters adequate washing and bathing/shower facilities and flush toilets must be provided. Separate, private and secure flush toilets and bathing/shower facilities must be provided. Adequate laundry facilities must be provided for washing clothes including washing machines and hot water. Lighting, hot and cold water and outflows and drains must also be provided in these facilities.

## 5.10 Travel

All employers have a responsibility to ensure all vehicles transporting employees to their place of work are safe, clean and roadworthy, and meet Land Transport New Zealand (LTNZ) regulations.

Employees operating work vehicles must hold a current driver's licence, demonstrate safe driving and good road safety habits.

Before nominating a driver, consider the possibility of driver fatigue, taking into account the number of continuous days the driver may have worked and total hours of work that day.

**Driving should be completed within one hour of the driver finishing work for the day.**

## References/other publications of interest

- *Prevention and Management of Discomfort, Pain and Injury for Shearing and Wool Handlers* (ACC)
- *A Guide To Health And Safety In Employment Act 1992* (Department of Labour)
- *Guidelines for the Provision of Safety, Health And Accommodation In Agriculture* (Department of Labour)
- *Health and Safety Recommendations for Fasting Sheep Prior to Shearing* (Department of Labour)
- *Your Safe Driving Policy* (Land Transport New Zealand and ACC)
- *Safety And Health In Shearing – A Guideline for Industry* (Australia)
- *Code of Practice for Clip Preparation* (New Zealand wool industry)
- Health and safety manuals (New Zealand Shearing Contractors' Association Inc.)
- Tectra shearing industry handbooks

## DEFINITIONS

**BUNGY** A sprung back aid that reduces the load on the back from a shearer's upper body weight

**CATCHING PEN** A small pen from which a shearer catches each sheep

**CHUTE** A slide or race between a porthole and a count out pen

**COUNT OUT PEN** A pen where shorn sheep are put for counting

**DOWN-TUBE** A tube hanging from a shearing motor to drive a hand-piece

**DRAFT** Separate different categories of sheep

**EMPLOYEE** Woolshed staff. A person who works either directly for a principal OR for a shearing contractor who contracts to a principal

**EMPLOYER** When the principal (farmer) employs a contractor, the contractor becomes the employer of woolshed staff. If the principal directly employs staff, they are also an employer i.e. an employer is the party responsible for paying employees' wages or salaries

**HARM** Illness or injury or both; it includes physical and mental harm caused by work-related stress

**HAZARD** Any activity, situation or substance that can cause harm. Hazards can be:

- Actual or potential
- Physical (e.g. moving machinery, electrical, burning, rotating, environmental and ergonomic conditions)
- Biological (e.g. inhaling dust or poisonous vapours, touching toxic chemicals or products)
- Behavioural (e.g. temporary conditions induced by stress, fatigue, shock, alcohol or drugs)

**LOANED EMPLOYEES** Where an employer places employees at the disposal of another employer the legal obligations and responsibilities rest with the employer who is responsible for paying the employees' wages or salaries.

**MUST** Used to show that it is necessary, or very important, that something happens in the present or future

**PEN STAIN** Dung stain on wool

**PLACE OF WORK** A place (building, structure or vehicle) where any person works, or may work, or must pass through to reach a place of work, or is under the control of the employer

**PORTRHOLE** A hole at each shearing stand through which shorn sheep exit

**PRACTICABLE** "All practicable steps." Economically and socially feasible steps that can be done or put into action. These steps are what a prudent person would have or should have knowledge about

**PRINCIPAL** A person who, or organisation that, engages any person (other than as an employee) to do any work for gain or reward

**PRINCIPLE** A moral, rule or standard of good behaviour

**PRESSER** A wool handler responsible for compacting wool into bales

**RUN** A period of the workday. Normally either 1.75 or two hours

**SEASON** The period of work that is relative to a time of year i.e. December/ January/February, summer, main shear season, July/August/September pre-lamb season

**SELF-EMPLOYED** Woolshed staff who work directly for a farmer. "Open operators."

**SERIOUS HARM** Death or;

1. Any of the following conditions that amounts to or results in permanent loss of bodily function, or temporary severe loss of bodily function: respiratory disease, noise-induced hearing loss, neurological disease, cancer, dermatological disease, communicable disease, musculoskeletal disease, illness caused by exposure to infected material, decompression sickness, poisoning, vision impairment, chemical or hot-metal burn of eye, penetrating wound of eye, bone fracture, laceration, crushing.
2. Amputation of body part.
3. Burns requiring referral to a specialist ... medical practitioner or specialist outpatient clinic.
4. Loss of consciousness from lack of oxygen.
5. Loss of consciousness, or acute illness requiring treatment by a medical practitioner, from absorption, inhalation or ingestion of any substance.
6. Any harm that causes the person harmed to be hospitalised for a period of 48 hours or more

commencing within seven days of the harm's occurrence

**SHAFTING PLANT** Older-fashioned shearing motor system. One motor drives all stands with one long steel shaft

**SHALL** Used to say that something certainly will or must happen, or that you are determined that something will happen

**SHEARER** A person who undertakes shearing of sheep

**SHEARING** The removal of wool from a sheep. Can also be used to describe the whole process of the removal, processing and packaging of a fleece into bales

**SHEARING BOARD** The space in which actual shearing takes place

**SHEARING CONTRACTOR** An individual who organises, pays and supplies shearing teams to farmers. Is legally responsible for employing people

**SHEEPO** A person whose job is to move sheep forward inside a woolshed and fill the catching pens

**SHOULD** Used to state what is the correct or recommended thing to do

**STAND** A shearing position on a shearing board. Each stand is equipped with overhead gear so the hand-piece may be attached, a holding pen for the unshorn sheep and a "porthole" or exit for the shorn sheep to leave the shed

**SUB-CONTRACTOR** A person engaged (as an employee) by a contractor to undertake paid work

**WOOL BALE** A package of wool. Average weight of 160 to 180 kilograms

**WOOL HANDLER** A member of the shearing team who handles wool. This includes its removal from the shearing board, and the skirting (pulling away the dirty and uneven edges of the fleece to give a clean, even appearance) and classing (sorting of the fleece by length, colour, quality, soundness and condition)

**WOOL PRESS** The machine used to compress wool into bales

**WOOL ROOM** The space in which sorting and pressing of wool take place

**WOOLSHED** A farm building that is usually specifically designed and designated for the shearing of sheep

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