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GOOD PRACTICE GUIDELINES

Preventing manual handling injuries on farms

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New Zealand Government

WORKSAFE NEW ZEALAND | MAHI HAUMARU AOTEAROA

The purpose of these guidelines is to help reduce the risk of injuries from manual handling on farms by providing practical guidance on how to manage hazards.

ACKNOWLEDGEMENTS

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- Accident Compensation Corporation (ACC)
- Beef and Lamb New Zealand
- DairyNZ
- Dairy Women's Network
- FarmSafe
- Federated Farmers of New Zealand Inc
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- Primary Industry Training Organisation
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- University of Auckland
- University of Otago.

It has been adapted from an existing ACC publication: *Preventing Manual Handling Injuries for the Farmer*.

The guideline was also informed by information from overseas regulators. The following organisations are acknowledged for providing information to develop this guide:

- WorkSafe, Department of Commerce, Western Australia
- Safe Work Australia
- The Health & Safety Executive (UK).

PREVENTING MANUAL HANDLING INJURIES ON FARMS: KEY POINTS

Workers must be trained in correct techniques for manual handling jobs

No one should lift something that is too heavy for them

Lift with the legs, not the back

(Re)design the workplace to minimise manual handling hazards

Use mechanical/lifting aids where possible

Plan regular breaks and rotate jobs

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INTRODUCTION

IN THIS SECTION:

This guideline is about preventing injuries from manual handling on farms.

1.1 PURPOSE

Farm workers do a wide variety of manual handling tasks. The tasks involve using force, repetitive movements, stooping, static and awkward postures, continual bending and twisting at the waist, and handling heavy objects.

These can cause several problems, including:

> serious back injuries
> musculoskeletal disorders, including occupational overuse syndromes
> acute injuries, like muscle or tendon sprains and strains
> injuries from slips, trips and falls.

Manual handling is also one of many inter-related risks for acute low back pain.

This guideline identifies the dangers and risks from manual handling in farming and offers recommendations to help avoid accidents and injuries. WorkSafe NZ accepts these recommendations as current industry best practice. They will help you comply with the Health and Safety in Employment Act 1992 (the HSE Act).

1.2 SCOPE

This guide is for farmers, employers, employees, principals, contractors, health and safety advisers, health and safety representatives, consultants and designers. The guide encourages employers and employees to work together to prevent harm when carrying out manual handling tasks on the farm.

Use this guide:

> to review how existing manual handling tasks are carried out on the farm
> when designing and carrying out new jobs involving manual handling
> when designing or changing equipment or work processes
> when manufacturing, importing or supplying equipment.

1.3 DEVELOPMENT

Industry experts helped WorkSafe NZ develop this guide. WorkSafe NZ also reviewed accident statistics, published academic literature and how overseas health and safety regulators manage the same issues.

WorkSafe NZ has made every effort to ensure the guide's recommended hazard controls reflect current best practice.

02/

ABOUT MANUAL HANDLING

IN THIS SECTION:

Manual handling involves lifting, lowering, pushing, pulling, carrying, throwing, moving, restraining, holding or handling any animate, or inanimate object.

2.1 HAZARDOUS MANUAL HANDLING TASKS

A hazardous manual handling task involves one or more of the following:

FORCE	EXAMPLES
Repetitive force	Lifting and stacking hay bales
Sustained force	Carrying feed or water buckets
High force	Lifting concrete posts
Sudden force	Handling frightened or resistant animals
MOVEMENT	**EXAMPLE**
Repetitive movement	Attaching milking cups
POSTURE	**EXAMPLES**
Sustained posture	Bending over to attach milking cups in a shallow pit
Awkward posture	Bending and twisting during shearing or crutching
VIBRATION	**EXAMPLES**
Whole-body vibration	Driving a tractor or quad bike over rough ground
Hand-arm vibration	Using a chainsaw or shearing handpiece

These aspects of manual handling put stress on the body and can cause injuries.

2.2 MUSCULOSKELETAL DISORDERS (MSDS)

Manual handling can harm your musculoskeletal system (your bones and muscles) slowly, so the injury gets worse over time (a chronic injury). Manual handling accidents can also cause immediately-felt (acute) injuries, like cuts or broken bones.

Injuries and pain in the lower back are the most common work-related MSDs.

MSDs include:

> muscle, ligament and tendon sprains and strains
> back injuries, including muscle, tendon, ligament, spinal disc, nerves, joint and bone damage
> joint and bone injuries or weakening, including shoulder, elbow, wrist, hip, knee, ankle, hand and foot injuries
> nerve injuries or compression, like carpal tunnel syndrome
> muscular and blood vessel conditions from hand-arm vibration (eg white knuckle)
> soft tissue hernias
> ongoing, long-term (chronic) pain.

MSDs are caused in two ways:

1. Repeated or continual use of the same body part gradually wears down joints, ligaments, muscles and discs in the spinal cord. These movements include static body positions, like carrying buckets of water.
2. Sudden damage is caused by strenuous work or unexpected movements (such as handling animals that move or change position suddenly).

A combination of these also can also cause harm, for example, you could be more likely to get injured from manual handling if your body is weakened by damage that's built up over time.

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HOW TO IDENTIFY AND CONTROL MANUAL HANDLING HAZARDS

IN THIS SECTION:

There are several ways to identify manual handling hazards on the farm.

3.1 REVIEW RECORDS

Farm records are a good source of information for identifying hazardous manual handling tasks. Look at hazard registers, accident investigation forms and early reports of discomfort. Use these records to find the locations and tasks where people were harmed from manual handling tasks.

Think about:

> where in the workplace the problem occurred
> the person's job
> what they were doing at the time
> the body part harmed (for example, the lower back or ankle)
> what the problem was (for example, a strain, open wound or broken bone)
> what went wrong.

When reviewing these records, think about:

> how many accidents or injuries are caused by particular manual handling tasks
> how often do injuries happen
> the total workload of each worker – that is, the time spent doing all the different manual handling tasks.

3.2 TALK WITH EMPLOYEES

Employees can help you understand potentially unsafe tasks. Employees know about the manual handling tasks they do, and how and when they do them. Employees can identify the exact tasks or actions they find tiring or hard to do. They can also help identify suitable controls to reduce the harm.

3.3 WATCH PEOPLE DOING MANUAL HANDLING TASKS

Watch all manual handling tasks to identify the hazards. Not all manual handling is harmful, so it is important to focus on the work that could cause harm.

Involve employees, contractors and principals to find out what they do. Watch them in detail and ask them to help you carry out the evaluation.

You can do this by:

> watching the worker do the task
> using checklists to make sure proper procedures are followed
> taking part in the task (where it is safe to do so).

If you have found one or more manual handling hazards in a task, or if written records or talks with employees show there is the potential for harm, you should assess the manual handling hazards.

3.4 ASSESSING MANUAL HANDLING HAZARDS

If you find unsafe manual handling tasks, you (and your employees, contractors and principals) should assess the risk level each task poses. As employers, farmers must control the hazard and tell workers how to keep themselves safe.

To assess manual handling hazards, you must:

1. **Assess the contributing factors**:
   - load
   - environment
   - people
   - task
   - management.

   When you've identified the contributing factors, you can control the task hazards.

   See the 'Loads' section of this Guideline for more information on how different types of loads can harm people.

2. **Decide how significant the contributing factors are**

   For each contributing factor you find, decide how risky it is, based on the information you've gathered.

   Record your risk estimate against each contributing factor.

3. **Hazard assessment**

   Once you've assessed the contributing factors and decided how significant they are, you have the information you need to manage the hazard.

3.5 LIMITING MANUAL HANDLING INJURIES

Think about how people manage their work. Make sure your employees know which manual handling tasks are hazardous and how to reduce the risk of injury.

> Remind employees that tasks should be smooth and controlled, never rushed.

> Teach them how to handle animals – avoid using brute force, which increases the risk of injury.

> Encourage them to share loads, to use lifting equipment, to handle only as necessary and not beyond their ability.

> Provide opportunities for employees to change their posture regularly, and to move and stretch between tasks.

> Encourage employees to keep fit.

> Encourage early reporting of signs of back pain. Most back problems are short term and not serious. The best way to deal with acute back pain is to stay active and keep moving – building up strength gradually and avoiding heavy duties.

> If back pain is ongoing or severe, get medical advice to make sure there are no serious problems, like fractures or bone infections.

3.6 LOADS

3.6.1 HEAVY LOADS

Handling heavy objects needs a lot of strength. This means tissues and joints in the back, knees, arms and shoulders are overloaded.

A lighter weight held away from the body needs the same effort to handle as a heavy one held close.

Jerking or moving a load quickly uses more force than just carrying the load.

WorkSafe NZ cannot set out specific weight limits (because manual handling is a complex process involving a lot of different risks), but the more weight or force needed, the more likely it is someone will be hurt.

3.6.2 BULKY OR AWKWARD LOADS

A bulky load:

> needs an awkward and twisted posture
> makes it hard to keep the weight close to the body
> increases the load on spine and joints.

3.6.3 UNPREDICTABLE OR DIFFICULT TO MOVE LOADS

Unpredictable loads, like lodged or stuck items, need more force to move. This is also the case with awkward postures or sudden, uncontrolled movements.

3.6.4 LOADS WITH UNEVEN WEIGHT DISTRIBUTION

These put demands on the person handling the load and might overload some muscle groups. The shape might stop the heavy end being held close to the body.

3.6.5 UNSTABLE OR UNBALANCED LOADS

Loads like fluids and sacks of shifting contents need extra muscle effort to control them. The person might have to use sudden, uncontrolled movements if the contents suddenly tip.

3.6.6 LOADS THAT BLOCK THE PERSON'S VIEW

Loads can cause twisted postures if the handler tries to get a better view. Injuries can also happen from slipping or falling.

3.6.7 LOADS THAT ARE DIFFICULT TO GRIP, GREASY OR SLIPPERY

If gripping the load is difficult, the handler might have to use their hand and arm muscles in a constant high force. Sudden, uncontrolled movements happen if they lose their grip. Gloves might make it easier to get a better grip, but they might increase the force needed to grip the load securely.

3.6.8 LOADS WITH HANDLES

Handles reduce the force needed to move a load and increase precision and ease of movement. The location, shape, position and size of handles are all important.

3.6.9 VERY HOT OR COLD LOADS OR THOSE THAT CONTAIN HAZARDOUS SUBSTANCES

The load's temperature or its chemical make-up influence how the load is handled. The handler might need protective clothing or equipment. The load might have to be held away from the body.

3.6.10 ANIMAL HANDLING

Animals pose unique handling problems, like how to grip the animal and how to counter unpredictable movements. How much help the animal can give, whether it cooperates, and how much pain it might experience also affect the way each animal should be handled.

3.6.11 LOADS WITH SHARP EDGES

Loads with sharp edges are unsafe and add to manual handling hazards.

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TYPES OF HAZARDOUS MANUAL HANDLING TASKS

IN THIS SECTION:

The different types of manual handling hazards faced on farms are outlined in this section, along with management strategies.

4.1 LIFTING AND MOVING OBJECTS ON THE FARM

Lifting and moving objects can involve high, sustained, repetitive or sudden forces. Some examples are:

> lifting and stacking hay bales
> carrying feed or water buckets
> lifting concrete posts
> handling frightened or resistant animals.

These contribute to lower-back pain, injury and other MSDs.

Uneven, steep or slippery terrain makes the risks of lifting and moving objects worse.

Remember that most back injuries don't happen suddenly. Back injuries often happen over many years of wear and tear, making the discs between the vertebrae weak and more likely to rupture.

MANAGING THE HAZARD:

Do not try to lift objects that are too big or heavy for you. Find ways to avoid lifting heavy items. If you must lift them, use your legs, not your back and keep the load in front of and close to your body. During long shifts, change tasks around to give your muscles a break.

Buy products in bulk or on a pallet that can be loaded using a forklift, front-end loader or augers.

> Make sure the bulk load is secure with straps, chains or other fixtures.
> Install automatic feeders.
> Buy smaller or ready-to-use amounts of products you don't use often.
> Use powered equipment or mechanical aids (eg front-end loaders) instead of lifting by hand.
> Use wheeled trolleys, dollys, wheelbarrows, ramps and other mechanical aids.
> Balance the load by carrying quantities in each hand; for instance, two buckets, one in each hand.
> Get help with lifting bags and heavy objects if you're carrying them over steep or slippery ground.
> Keep a safe lifting posture by keeping your back straight, the load close to your body and lifting by bending your legs.
> Make object surfaces easier to grip by attaching handles or using gloves.
> Break down awkward or heavy loads into smaller packages, drums, bags or packets.
> Make sure liquid loads are in containers that make handling easier, such as lightweight plastic with easy-to-use handles.
> Keep your equipment in good condition and replace worn parts – if you reduce friction, you reduce the force needed to move things.

4.2 SUSTAINED POSTURES

Any posture you hold for a time is a sustained posture, like bending for too long or using only one group of muscles. Examples are drenching cattle, hoof paring or driving a tractor. Holding one position can tire out the muscles you are using. It can lead to muscle strains, aches, pains or other MSDs.

Sustained postures are made more hazardous by:

> using high force
> vibration
> long duration
> high mental demand combined with unsafe manual tasks, such as inspection work.

MANAGING THE HAZARD:

Plan regular rest breaks so you don't hold awkward positions for too long.

Regular rest breaks give workers the chance to avoid or recover from tired muscles caused by unsafe manual handling tasks.

Rotate jobs often.

Rotate staff between different tasks to increase variety, this reduces the risk of MSDs. The tasks need to be different enough to make sure different muscle groups are used, giving the body a chance to recover.

Alter the working position.

Workers should not stay in seated, standing or other fixed postures for a long time.

For workers doing seated or standing tasks, get them to change their postures and movements. Examples are:

> For seated tasks (unless the backrest interferes with the actions) use seats with:
  - an adjustable seat height
  - adjustable backrest angle
  - a backrest that fits the spine
  - a swivel action so workers don't have to twist to reach.
> For standing tasks use:
  - a chair, stool or support so the worker can alternate between sitting and standing
  - a footrest (large enough for the whole foot) so you can stand with either foot raised
  - where possible, suitable floor covering to cushion concrete and other hard floors.

A standing work position is best when:

> handling large, heavy or bulky loads
> using forceful movements
> reaching
> moving in and out of the work area often
> lacking knee room or space.

4.3 REPETITIVE ACTIONS

Repetitive actions – like attaching and detaching milking cups, drenching or using pruning tools – can tire out the affected muscles. Over time, aches and pains or other MSDs appear.

MANAGING THE HAZARD:

Avoid double handling, share heavy workloads and use mechanical aids where possible.

Avoid excessive handling or double handling by planning work and storing objects in suitable areas.

> Share heavy workloads between workmates, rotate tasks, or spread physical handling tasks over a work week.
> Use turntables, hoists, trolleys and slides to move objects, instead of relying on body strength.

4.4 OVERREACHING OR HANDLING WITH THE ARMS OUTSTRETCHED

Some farming tasks involve overreaching or handling with the arms outstretched. Examples include working in the milking pit with the milking clusters or drenching and de-horning cattle.

MANAGING THE HAZARD:

Use mechanical aids where possible.

Mechanical equipment reduces or eliminates the need for workers to lift, carry or support items, animals or people. A wide range of equipment is available for different farm activities. Use turntables, hoists, trolleys and slides to move objects, rather than relying on body strength.

4.5 WHOLE BODY VIBRATION

Some farm tasks involve prolonged exposure to whole body vibration, such as working all day on a tractor or quad bike. Prolonged and repeated exposure to whole body vibration can lead to MSDs.

MANAGING THE HAZARD:

Take steps to dampen vibration and plan regular rest breaks.

Using vibration-damped equipment and engine mountings are a good way to reduce exposure to vibration. Other choices include:

- improving vehicle suspension
- installing operator seats on suspension systems with spring and damper elements
- keeping vibration-reducing measures well maintained
- making sure workers adjust their seats to fit
- using equipment within the manufacturers' recommendations or to a speed that reduces vibration
- telling workers about the risks of whole-body vibration and how to keep safe
- taking regular breaks.

Tell farm staff about hand-arm vibration. Use different work methods if they can eliminate the need for vibrating equipment. If this is not possible, buy tools and equipment that produce less vibration.

4.6 FATIGUE

Being tired can make manual handling hazards worse. Problems like poor time management, planning and deadlines can lead to problems, like trying to do too much because of deadline pressures. Sometimes there isn't enough communication or planning. This means work is often done in less than ideal conditions and can result in worker fatigue.

Working while physically fatigued increases the chances of MSDs developing. Working while mentally fatigued increases the chance of accidents happening.

MANAGING THE HAZARD:

Plan work in advance so people don't have to work unreasonable hours.

4.7 POOR WORKPLACE DESIGN

Poorly designed workplaces can increase the chances of accidents or injuries.

MANAGING THE HAZARD:

Get professional design advice when planning improvements or conversion. Keep the things you use most often in easy to reach places. Reduce carrying distances. Plan and design for easy handling; for example, storing heavy objects at waist height, avoiding the need to open doors while carrying loads and reducing how much you need to move objects around.

Think about the workplace's design and layout. Redesign or adapt by:

> Moving equipment and loads closer to where they are handled.

> Raising work surfaces to waist height to reduce bending, twisting, outstretched handling and awkward postures.

> Reduce or remove manual handling tasks where surfaces are slippery. Use lifting equipment, cover outdoor areas and wear footwear with a good grip.

> Keep yards in good condition. Remove trip and slip hazards. Make sure gates open easily.

> Improve drainage in work areas, such as around yards and sheds.

> Temperatures affect physical and mental capacity. Wear warm clothes when it's cold and light clothes when it's warm.

> Workers may need to wear personal protective equipment (PPE); that is, safety gear. This can make manual handling more difficult and hazardous.

> Beware of high winds – strong or gusty winds can catch a load and can blow you off balance.

> Be careful in dull or very bright conditions. Sharp and sudden contrasts between lighting (like moving from indoors to outdoors) or glare increase the chances of slips, trips and falls. Make sure farm buildings are correctly lit.

> Poor air quality affects work ability.

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Raised objects: If you are working under something that has been lifted off the ground, then put supports or similar devices under it to stop it falling.

05/

SPECIFIC HAZARDS AND CONTROLS

IN THIS SECTION:

The most common manual handling hazards on farms are outlined in this section. Recommendations on how to manage these hazards are provided.

5.1 MILKING

Milking cluster handling is one of the most frequent and repetitive manual handling tasks on a dairy farm. Repetitive manual handling, particularly in awkward positions (like attaching milking clusters in a shallow pit), can cause harm.

Specific tasks that can cause injury:

> handling milking clusters
> putting on and taking off clusters while bent in an awkward posture
> releasing clusters from automatic cup removers (ACRs).

An obvious hazard is a mismatch between worker height and pit depth or rotary height.

MANAGING THE HAZARD:

Set up your workplace to reduce the need to bend, twist or load.

Reduce injuries by keeping the work in front, between shoulder and mid-thigh height. This helps people to work in a position that keeps the natural lumbar curve in the lower back.

Some ways to achieve this:

> Make sure the farm dairy is designed to let workers milk comfortably – a position that reduces their need to overreach or bend continuously.
> Consider designing or changing a cups-on/off area so it adjusts to suit the worker's height. Keep everything within reach or within the shoulder-hip area.
> Put idle clusters on brackets and jetters at a height that reduces bending and reaching.
> Retrofit vacuum release valves on ACR rams.
> Use ACRs wherever practicable.
> Use rubber 'fatigue' matting in the pit to reduce the strain of standing for a long time.
> Provide clear access to the udders by planning the height of kick rails or splash guards.
> Review workers' cups-on technique to reduce repetitive overreaching.
> Change jobs to reduce repetitious manual handling tasks, including rotating between cups-on and cups-off positions.
> Use teat spray wands with a long nozzle to reduce the need to bend. This also reduces the chance of being kicked and exposed to spray.

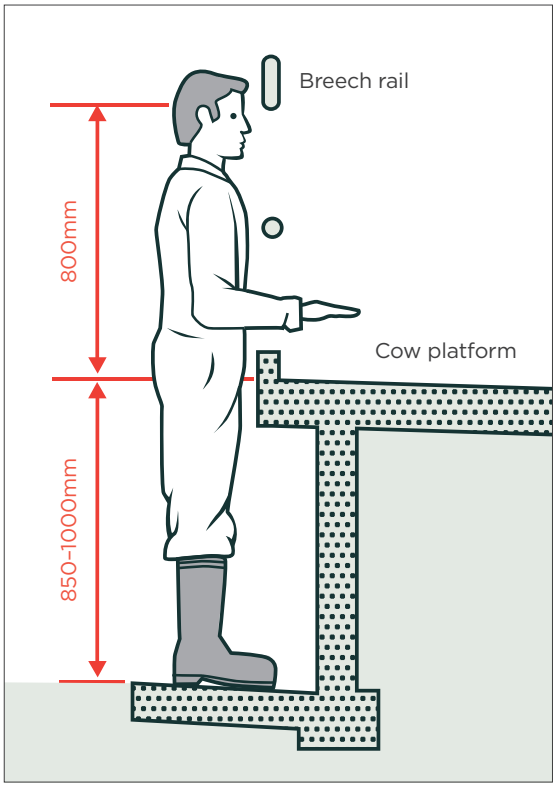

Figure 1: Appropriate height for milking

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5.2 HERD TESTING

Herd testing can also put people at risk of developing MSDs.

MANAGING THE HAZARD:

HAZARD	CONTROL
Removing herd test sample flasks	> Design the workplace so workers can take samples from a comfortable posture.
Sorting sample flasks on a bench	> Design a herd sample sorting table that reduces reaching and bending.
Moving trays of samples through the shed to a vehicle	> Use a trolley to transport samples to the vehicle. > Package samples at the collection point. > Limit the number of samples per tray to a comfortable carrying weight. > Keep the walkway clear of obstacles at floor and head height. > Remove trip or slip hazards. > Reduce the need to repeatedly transfer samples into trays. > Give the person taking the herd samples a milking shed safety induction. > Make sure the herd tester has modern equipment like mini-flasks. These flasks accept a smaller sample and weigh less.
Washing buckets	> Install a trough at working height in the shed.

5.3 LIFTING SHEEP

Sometimes sheep have to be lifted, for example, over a fence. Sheep are large, heavy animals and can fight against being lifted. This can cause back strains and twisting injuries.

MANAGING THE HAZARD:

> Avoid lifting sheep if possible. Use gates and ramps where available. If a sheep must be lifted, use your legs, not your back.

Some sheep weigh almost 100 kg. Only people with enough strength should lift sheep. Don't make someone lift a sheep if they cannot physically do it.

The correct technique for lifting a sheep is:

A. Hold the sheep against the rail and straddle its rump. Put one hand on the rail, the other under the sheep's neck.

B. Using the rail for support, take the strain off your back and pull the sheep onto its hind legs.

C. Move your hand, from the rail, under the sheep's nearest leg and grasp the opposite front leg.

D. Move your other hand from the neck and firmly grasp the fold of skin between the belly and hind leg.

E. Crouch behind the sheep, bend your knees, take the weight on your knees and hold the sheep firmly.

F. Stand up using your legs, not your back, and lift the sheep off the ground.

G. Swing the sheep towards the top of the fence, boosting it with your leg.

H. Put the sheep on top of the rail and let it see the ground.

I. With a slight rolling movement, let the sheep fall onto its feet.

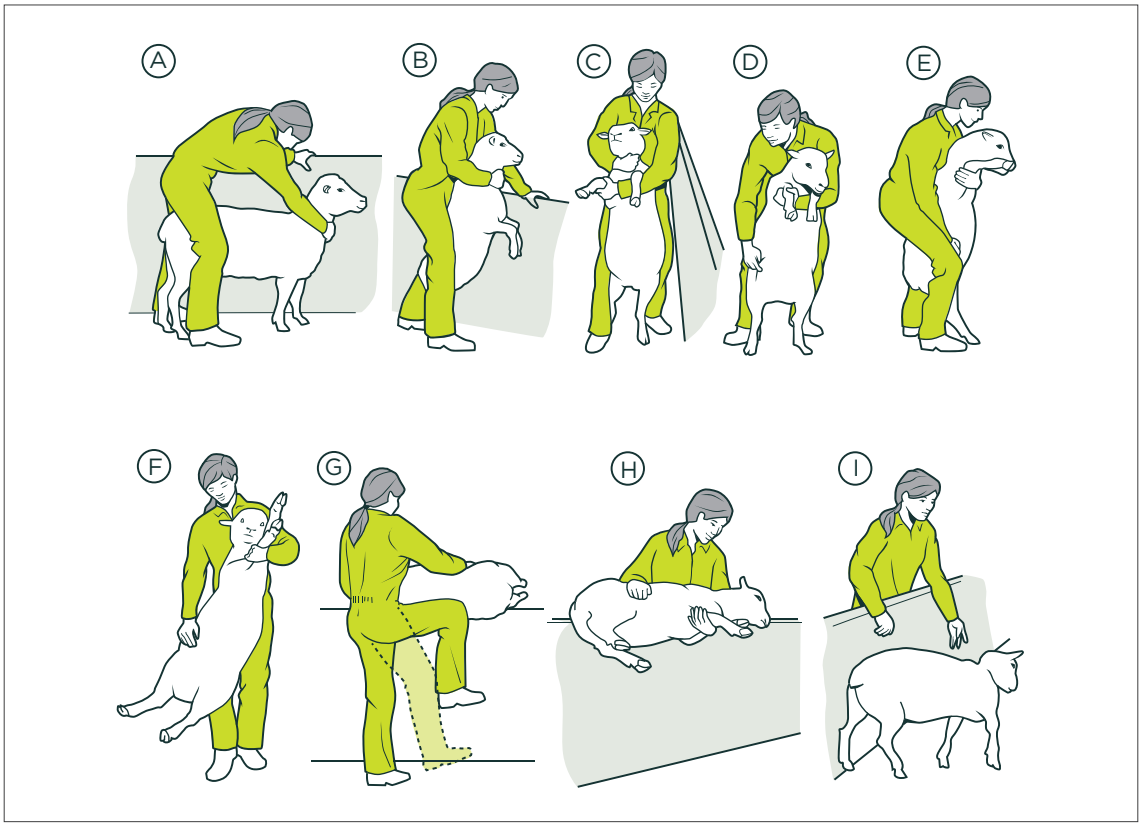

Figure 2: Correct sheep-lifting technique

5.4 LIFTING CALVES

Often it is necessary to lift a new-born calf; this causes many back injuries.

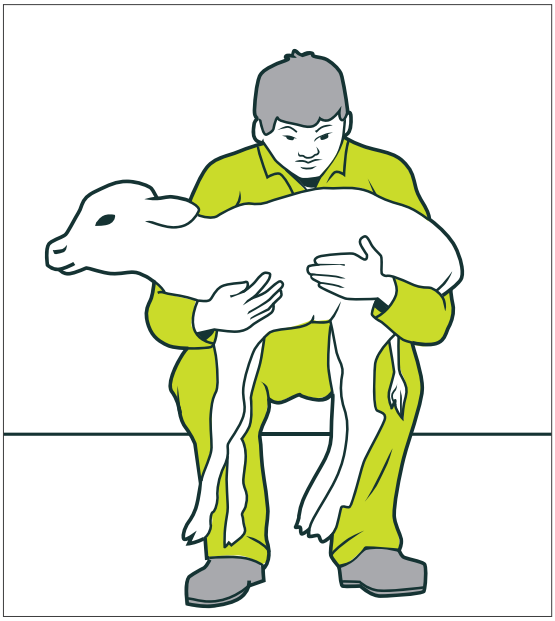

Figure 3: Correct calf-lifting technique

MANAGING THE HAZARD:

Lift using your legs and keep your back as straight as possible.

To lift, squat down beside the calf, pull it in close with one arm around the front and the other around the hind legs. Straighten your knees to lift it. Hold it firmly and don't let it struggle loose.

Calves quickly grow and become very heavy. No one should lift a calf if it is too heavy for them.

5.5 SHEARING AND CRUTCHING

Shearing and crutching are high-risk jobs that need a lot of manual effort. Back strains are likely because the work is repetitive and done in an awkward, bent-over position.

Contractors who shear or crutch thousands of sheep each year can be at high risk of injury. However, the less practised farmer – who is likely to have a poorer technique and less suitable gear – is also at risk of injury.

MANAGING THE HAZARD:

Use the correct techniques when shearing and crutching. Thoroughly train people who do this work.

TIPS FOR LIFTING OBJECTS

- Balance your body's weight equally over both feet.
- Step close to the load.
- Think about the best place to grip the load and the best type of grip to use.
- Apply force gradually, after testing the weight.
- Lift smoothly, rather than using sudden exertion.
- Hold the load close to your body.
- To change direction while moving, take a step in the new direction rather than twisting your body.
- Pace the work if it goes on for a long time, take small breaks often.

Sheep can be crutched standing (with their head in a bail or crutching plant, or held with your knees against a rail) or sitting up across the shearing board.

Use the correct techniques to catch and drag sheep across the board:

1. Hold the sheep against your braced knees with one hand under the chin and one on the rump.
2. Turn the sheep's head to the rear while forcing the rump down against your leg with your other hand.
3. When the sheep is no longer standing on its feet, lift the front leg and sit the sheep securely on its rump.

To save effort and avoid back strain when pulling the sheep across the shearing board, get the animal to walk backwards and then sit it on its rump.

Take special care of your back when shearing or crutching. Using a good technique avoids unnecessary pressure on your back and keeps your spine straight while under load.

> Keep your lower back warm, particularly in draughty woolsheds. Use a back-warmer and wear more layers during breaks.
> Take every chance to straighten and extend your back beyond straight when standing or lying down.
> Use a lumber support while sitting at break times.
> A back support (bungy) supports the upper body and is recommended for back problems. When using a back support ensure it is attached securely and doesn't touch electrical wiring.

Crutching sheep standing in the race lessens back strain and increases output, although it is usually only suitable when doing light dagging or crutching.

To learn more about shearing safety, see WorkSafe NZ's *Best Practice Guideline for Shearing*.

5.6 SHEARING HANDPIECES

A worn out, poorly adjusted or maintained handpiece will vibrate, heat up, cut poorly and put more physical strain on the crutcher or shearer's hands and arms. It can also cause a mechanical lock-up, which can break bones and seriously wound the user and people nearby.

MANAGING THE HAZARD:

Handpieces must be kept in good working order.

Keep the handpiece in the best possible condition and replace worn parts. Where crutchers and shearers are required to supply and maintain their own handpiece, they are also responsible for keeping it in good order.

Regular safety checks should include:

> Correct comb and cutter set-up on the handpiece: check screws are tight, fork pins are secure in the cutter holes and tension is on.
> The tension pin should work, stopping the tension from releasing.
> The spline drive, connecting the handpiece to the downtube, should release easily.
> The leather guard protecting the cogs must be effective.

Use worm (spline) drives. They reduce the risk of serious injury from lock-up.

06/

TRAINING REQUIREMENTS

IN THIS SECTION:

Employers must give employees information and training about each hazardous manual handling task that hasn't been eliminated from the farm.

6.1 GENERAL REQUIREMENTS

Employees must have the knowledge and experience to work safely. If they don't, they must be supervised by someone with that knowledge and experience so they don't harm themselves or others. Train employees how to use plant, objects, substances, equipment, and relevant PPE safely.

Record when training occurred and who was trained.

Competent employees should know:

> how to do the task properly and safely
> what the hazards of the job are
> how to control the hazards
> how to use equipment and lifting aids properly and safely
> effects of contributing factors on manual handling: load, environment, people, task and management
> how to carry out a basic task assessment to identify hazardous manual handling tasks
> safe handling principles (such as being close to the load)
> when and how to use PPE.

Training cannot fix problems like:

> poor work area layout
> lack of mechanical aids or using inappropriate ones
> unsuitable loads
> poor working conditions.

6.2 TRAINING FOR HEALTH AND SAFETY REPRESENTATIVES

The Health and Safety in Employment Act 1992 gives employees the right to be involved in workplace health and safety matters. One way to do this is by electing a health and safety representative. This is someone who employees can go to when they have any concerns or suggestions regarding health and safety in the workplace. The representative will work with the employer in good faith to find a solution.

This representative can take two days paid leave each year to undergo approved health and safety training.

07/

REFERENCES

IN THIS SECTION:

7.1 GLOSSARY

TERM	DEFINITION
Acute Injuries	An injury caused by a recent traumatic event (usually within a day or so of the event). Injuries include bruises, cuts, broken bones.
All Practicable Steps	*Section 2A Health and Safety in Employment Act 1992:* 'The steps taken to achieve the result that it is reasonably practicable to take in the circumstances, having regard to: 1. the nature and severity of harm that may be suffered if the result is not achieved; and 2. the current state of knowledge about the likelihood and severity of harm that will be suffered if the result is not achieved; and 3. the current state of knowledge about harm of that nature; and 4. the current state of knowledge about the means available to achieve the results and about the likely effectiveness of each of those means; and 5. the availability and cost of each of those means. 'To avoid doubt, a person required by the Health and Safety in Employment Act 1992 to take all practicable steps is required to take those steps only in respect of circumstances that the person knows or ought reasonably to know about.'
Asymmetrical Posture	A posture that requires the body to twist or bend to one side or to bear the weight unevenly on the feet.
Auger	A mechanism that uses a rotating screw blade, called a 'flighting', usually within a tube, to move liquid or other materials, like animal feed.
Confined Space	*AS 2865 Confined Spaces:* 'An enclosed or partially enclosed space that is not intended or designed primarily for human occupancy, within which there is a risk of one or more of the following: a. An oxygen concentration outside the safe oxygen range. b. A concentration of airborne contaminant that may cause impairment, loss of consciousness or asphyxiation. c. A concentration of flammable airborne contaminant that may cause injury from fire or explosion. d. Engulfment in a stored free-flowing solid or a rising level of liquid that may cause suffocation or drowning.'
Contributing Factors (Manual Handling)	The things that make manual handling hazards more serious and more frequent, such as load, environment, people, task and management.
Control or Control Measure	A way of eliminating, isolating or minimising the risk of harm in any task.
Hazard	*Section 2(1) of the Health and Safety in Employment Act 1992:* "An activity, arrangement, circumstance, event, occurrence, phenomenon, process, situation or substance...that is an actual or potential cause or source of harm".

TERM	DEFINITION
Hazardous Manual Handling	Any manual handling task with one or more of the following: > twisted, stooped, awkward, asymmetrical postures > fixed, sustained, rigid, prolonged postures > unvaried, repetitive movements > sudden, uncontrolled or jerky movements > handling or reaching away from the body > using high or sustained force > handling heavy or awkward loads > whole body vibration or upper limb vibration > handling that goes on for too long without a break.
Load	The object being handled or the forces being applied.
Manual Handling	Any activity requiring a person to interact with their environment and use any part of their muscles or skeletal system to lift, lower, push, pull, carry, throw, move, restrain or hold any object, whether animate or not.
Manual Handling Task	Specific manual handling action or activity. It may be one part of a job.
Musculoskeletal Disorders (Work-Related)	A collective name for a range of conditions that affect the muscles, tendons, bones and joints. This term includes occupational overuse syndromes, back injuries and acute low back pain.
Occupational Overuse Syndrome (OOS)	An umbrella term for a range of disorders characterised by pain and/or other sensations in muscles, tendons, nerves, soft tissues and joints with evidence of clinical signs. Overuse syndromes are musculoskeletal disorders.
Personal Protective Equipment (PPE)	Items of personal equipment worn for protection of some sort; ear muffs, gloves and boots are examples.
Plant	Any appliance, equipment, fitting, furniture, implement, machine, machinery, tool or vehicle (and any part of, controls for or anything connected to that plant).
Safe	"Not exposed to any hazards or free from hazards." Section 2(1) Health and Safety in Employment Act 1992

TERM	DEFINITION
Serious Harm	First Schedule to the Health and Safety in Employment Act 1992 '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. > Amputation of body part. > Burns requiring referral to a specialist medical practitioner or specialist outpatient clinic. > Loss of consciousness from lack of oxygen. > Loss of consciousness, or acute illness requiring treatment by a medical practitioner, from absorption, inhalation, or ingestion, of any substance. > Any harm that causes the person harmed to be hospitalised for a period of 48 hours or more commencing within 7 days of the harm's occurrence.'
Significant Hazard	*Section 2(1) of the Health and Safety in Employment Act 1992*: 'Significant hazard means a hazard that is an actual or potential cause or source of— a. serious harm; or b. harm (being harm that is more than trivial) the severity of whose effects on any person depend (entirely or among other things) on the extent or frequency of the person's exposure to the hazard; or c. harm that does not usually occur, or usually is not easily detectable, until a significant time after exposure to the hazard.' (For example, deafness from prolonged exposure to noise in the workplace.)
Strains and Sprains	These terms are used in the sense of their normal meanings in a medical diagnosis.
Workplace Design	The design of the workplace – in relation to the characteristics of the people who will use the workplace and the work that will be done in it.

TO BE UPDATED TO REFLECT LATEST LEGISLATIVE CHANGES

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Notes

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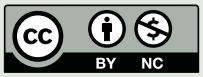

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