

MUSCULOSKELETAL DISORDER (MSD) HAZARDS FROM DRENCHING AND VACCINATING SHEEP

An MSD is an injury to, or disease of, the body’s musculoskeletal system and includes sprains and strains of muscles, ligaments, tendons and joints.

A hazardous manual task is a task requiring a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving repetitive or sustained force.

Please note: This guidance is focussed on MSDs and images shown are for the purpose of illustrating hazardous manual tasks and possible controls. SafeWork NSW recommends that users of drench guns and injector vaccinating guns undertake appropriate risk assessment for the appropriate safe storage, handling, application and disposal of chemicals used for drenching and vaccination.

EXAMPLE HAZARD

DRENCHING AND VACCINATING SHEEP



MSD RISKS

DRENCHING AND VACCINATING SHEEP

RISK	CAUSE
1. Body stress from hazardous manual tasks (manual handling).	<ul style="list-style-type: none"> The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body and/or head. The worker being exposed to sustained and awkward postures ie bending over. The worker being exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine.
2. Being hit by an animal.	<ul style="list-style-type: none"> The sheep being drenched/vaccinated and/or neighbouring sheep unexpectedly striking the worker. The sheep being drenched/vaccinated and/or neighbouring sheep standing unexpectedly on the worker’s feet.
3. Falls on the same level.	<ul style="list-style-type: none"> The sheep being drenched/vaccinated and/or neighbouring sheep unexpectedly knocking the worker to the ground.

CONTROL MEASURES



CONTROL MEASURE – Handle the sheep in a more contained area such as a race – worker inside race

Constraining the sheep in a smaller area eg a race reduces the animals' ability to move.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> • Fall on the same level has been partially reduced from sheep unexpectedly knocking the worker to the ground. • Being closer to the animals, some awkward postures are partially reduced. 	<ul style="list-style-type: none"> • The worker is still exposed to body stress by being inside the race ie. use of their body to restrain the sheep from moving backwards. • The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine.



CONTROL MEASURE – Handle the sheep in a more contained area such as a race – worker outside race

By having the worker outside the race they are physical separated from the sheep.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> • The sheep's body unexpectedly striking the worker has been dramatically reduced. • The sheep standing unexpectedly on the worker's feet has been ELIMINATED. • The sheep unexpectedly knocking the worker to the ground has been ELIMINATED. 	<ul style="list-style-type: none"> • Being outside the race does increase the postural demands of the worker's back and shoulders. • The worker is still exposed to body stress due to the need to use their arm to restrain the entire sheep from moving forwards/backwards. • The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. • The worker's arm holding the sheep's head being unexpectedly hit against the side of the race.



CONTROL MEASURE – Modify the handling race and pack the sheep tightly into the race

- a. Raise the handling race above the ground so that the sheep are higher up to assist in improving the worker’s posture when handling the sheep.
- b. Narrow the handling race to restrain the sheep’s movement.
- c. Splay the race side outwards and pack the sheep tightly in the race to further restrain the sheep’s longitudinal and lateral movement.

Note: By raising the race floor off the ground and/or splaying the race sides, the worker’s posture is further improved as their feet are inside the top of the rail side – enabling the body to be closer to the handle sheep.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> • The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body has been reasonably reduced. • The worker being exposed to sustained and awkward postures ie. bending over has also been reasonably reduced. 	<ul style="list-style-type: none"> • The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. • The worker is still exposed to the sheep’s head movements.



CONTROL MEASURE – Modify the handling station to raise the sheep’s feet off the ground

The handling station has a “grated steel floor” resting on the ground. The sheep are led into the handler’s race and once in place, the grated floor is mechanically raised. The sheep’s feet align inside the grate openings and their bodies rest on the grate with feet elevated off the ground. This prevents the sheep moving their bodies and assists in the worker’s posture when handling.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> • The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body has been substantially reduced. • The worker being exposed to sustained and awkward postures ie. bending over has also been reasonably reduced. • The sheep’s body unexpectedly striking the worker has been dramatically reduced. • The sheep standing unexpectedly on the worker’s feet has been ELIMINATED. • The sheep unexpectedly knocking the worker to the ground has been ELIMINATED. 	<ul style="list-style-type: none"> • The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. • The worker is still exposed to the sheep’s head movements.



CONTROL MEASURE – Dedicated Sheep Handling Station with “anti-backing bars”

Provide a dedicated sheep handling station:

- a. With the width reduced to the largest animal to be handled to minimised lateral movement; and
- b. Install spring loaded “anti-backing” bars to prevent the sheep from backing out of the handler.

Note: By raising the race floor off the ground and/or splaying the race sides, the worker’s posture is further improved as their feet are inside the top of the rail side – enabling the body to be closer to the handle sheep.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body has been partially reduced. Neighbouring sheep unexpectedly striking the worker has been ELIMINATED. 	<ul style="list-style-type: none"> The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. The worker is still exposed to the sheep’s head movements.



CONTROL MEASURE – Dedicated Sheep Handling Station with raised and splayed sides

- a. Raise the dedicated sheep handling station above the ground so that the sheep are higher up to assist in improving the worker’s posture when handling the sheep.
- b. Splay the station’s sides outwards to prevent lateral movement for sheep of different sizes.

Note: By raising the race floor off the ground and/or splaying the sheep handling station, the worker’s posture is further improved as their feet are inside the top of the rail side – enabling the body to be closer to the sheep

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body has been reasonably reduced. The worker being exposed to sustained and awkward postures ie bending over has also been reasonably reduced. 	<ul style="list-style-type: none"> The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. The worker is still exposed to the sheep’s head movements.



Control Measure – Dedicated Sheep Handling Station – manual sheep clamping

As the sheep enter and walks through the sheep handling station, the worker leans against a hinged panel that clamps the sheep in the station reducing lateral and longitudinal movement of the sheep.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> • The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body has been substantially reduced. • The worker being exposed to sustained and awkward postures ie bending over has also been reduced. 	<ul style="list-style-type: none"> • The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. • The worker is still exposed to the sheep’s head movements.



Control Measure – Dedicated Sheep Handling Station – fully automated

The sheep are guided into the handler’s lead-up race. The sheep are prevented from going back by anti-backing flaps along the side and the tapered/splayed sides help prevent them from turning around. When the sheep enters the handling station the animal is automatically clamped and the entry gate closes behind them, preventing the next sheep from entering. At this point the clamped animal can be drenched, vaccinated etc. The sheep can also be tipped horizontally onto its side for crutching and various other procedures and inspections. After the animal has been handled, a drafting gate is opened and the sheep is released into a predetermined pen.

The use of a sheep handling station such as this one will also prevent neighbouring sheep to unexpectedly strike, knock down or make contact with workers.

Note: Similar reduction and elimination of risks associated with traditional sheep crutching techniques have been identified when operating the fully automated dedicated sheep handling station.

RISKS ADDRESSED	ISSUES STILL PRESENTS
<ul style="list-style-type: none"> • The worker being exposed to sudden, repetitive and/or forceful exertions while restraining the drenched/vaccinated sheep’s body has been ELIMINATED. • The worker being exposed to sustained and awkward postures ie bending over has been reasonably reduced. • The handled sheep’s body unexpectedly striking the worker has been dramatically reduced. • Neighbouring sheep unexpectedly striking the worker has been ELIMINATED. • The sheep standing unexpectedly on the worker’s feet has been ELIMINATED. • The sheep unexpectedly knocking the worker to the ground has been ELIMINATED. 	<ul style="list-style-type: none"> • The worker is still exposed to repetitive hand, arm and shoulder movements when administering the drench or vaccine. • The worker is still exposed to the sheep’s head movements.



ADDITIONAL RESOURCES

For further information on how to manage Musculoskeletal Disorder (MSD) Hazards on farm, general farm safety, book an advisory visit or MSD Farm Morning Tea:

www.safework.nsw.gov.au

Call 13 10 50

Disclaimer

This publication may contain information about the regulation and enforcement of work health and safety legislation in NSW. It may include some of your obligations under some of the legislation that SafeWork NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.

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